

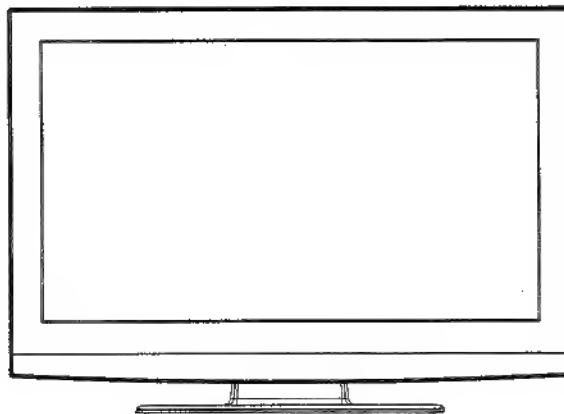


# SERVICE MANUAL

**ORION**

**TV32PL120D**

**Digital LCD Colour Television**



**ORIGINAL  
CHASSIS CODE B**

**Best. Nr. SM32PL120**

Design and specifications are subject to change without notice.

## SERVICING NOTICES ON CHECKING

### 1. KEEP THE NOTICES

As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

### 2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

### 3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.

Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a  mark, the designated parts must be used.

### 4. BE CAREFUL WITH THE LCD PANEL

Avoid a shock to the panel while servicing. Take enough care to deal with it.

### 5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

### 6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

#### (INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the eternal exposure metal [Note 2] should be more than 1M ohm by using the 500V insulation resistance meter [Note 1].
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

#### [Note 1]

If you have not the 500V insulation resistance meter, use a Tester.

#### [Note 2]

External exposure metal: Antenna terminal  
Headphone jack

## HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the CHASSIS CODE.)

1. MODEL NUMBER and CHASSIS CODE  
YOU can find it in the back of your unit.
2. PART NO. and DESCRIPTION  
You can find it in your SERVICE MANUAL.

## IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

## **PARENTAL CONTROL - RATING LEVEL**

### **4 DIGIT PASSWORD CANCELLATION**

If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below.

1. Turn on the power.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (3) on the remote control for more than 2 seconds.
4. The 4 digit password has now been cancelled.
5. Unplug the AC cord, then plug it in.

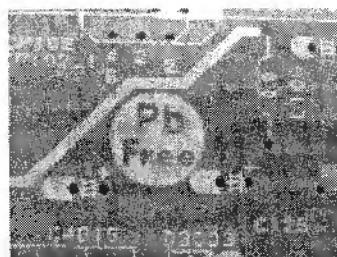
**NOTE:** No indications on the screen when the Parental Lock is setting.

Initializing password is 0000.

## **ABOUT LEAD FREE SOLDER (PbF)**

### **Distinction of PbF PCB:**

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.  
(Please refer to figures.)



### **Caution:**

- Pb free solder has a higher melting point than standard solder;  
Typically the melting point is 86°F~104°F(30°C~40°C) higher.  
Please use a soldering iron with temperature control and adjust it to  $650^{\circ}\text{F} \pm 20^{\circ}\text{F}$  ( $350^{\circ}\text{C} \pm 10^{\circ}\text{C}$ ).  
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about  $1100^{\circ}\text{F}/600^{\circ}\text{C}$ ).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.  
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,  
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

### **Recommendations**

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

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## GENERAL SPECIFICATIONS

G-1	TV System	LCD	LCD Size / Visual Size	31.51 inch / 800.4mmV
		LCD Type	Color TFT LCD	
		Number of Pixels	1366(H) x 768(V)	
		View Range	Left/Right Up/Down	89/89 degree 89/89 degree
		Bright Dot	n≤ 0	
		Zero Bright Dot Ratio	—	
		Color System	PAL / SECAM	
		Speaker	2 Speaker	
		Position	Front	
		Size	2.2 x 5.0 inch	
		Impedance	4 ohm	
		Sound Output	MAX 10%(Typical)	10W + 10W —
		NTSC3.58+4.43 /PAL60Hz		Yes
G-2	Tuning System	Broadcasting System	Analog	U.K., I.R., CCIR, FRENCH System B/G, D/K, I/I, L
		Digital		DVB-T (OFDM 2k/8k 16QAM/64QAM)
		Tuner and Receive CH	System	1Tuner (Analog+Digital)
		CH Coverage	Destination	UK, I.R., CCIR Hyper+France CATV
			Analog	IreE2~E4, X-Z-2, S1-S10, E5~E12,S11~S41,E21~E69
			Digital	E5~E12, ItaE~G, F1~F6, Rus6~12, E21~E69
		Intermediate Frequency	Analog	BG / II / DK, L / L' (SECAM VL)
			Picture(FP)	38.9 / 38.9 / 38.9 / 33.9MHz
			Sound(FS)	33.4 / 32.9 / 32.4 / 40.4MHz
			FP-FS	5.5 / 6.0 / 6.5 / 6.5MHz
		Digital		36.167MHz
		Auto Tuning Method		ALL Band (Not C.C.I.R. CH Plan)
		Preset CH	Analog	99
			Digital	Carrier 200 / Service 1000
		Stereo/Dual TV Sound		Nicam/A2 Dual
		Tuner Sound Muting		Yes
G-3	Power	Power Source	AC	220-240V AC 50Hz/60Hz
			DC	—
		Power Consumption		at AC at DC
		Stand by (at AC)	w/ EPG Timer w/o EPG Timer Per Year	160 W at AC 230 V 50 Hz — 9 W at 230V 50Hz 1 W at 230V 50Hz — kWh/Year
		Protector	Power Fuse	Yes
G-4	Regulation	Safety Radiation X-Radiation		CE(EN60065:2002) CE —
G-5	Temperature	Operation Storage		+5°C ~ +40°C -20°C ~ +60°C
G-6	Operating Humidity			Less than 80% RH
G-7	OSD Language			English, Spanish, German, French, Italian, Swedish, Dutch, Russian, Portuguese, Turkish, Greek, Finnish, Polish
G-8	Clock and Timer	Sleep Timer	Max Time Step	120 Min 10 Min
		On/Off Timer	Program(On Timer / Off Timer)	— Program
		Wake Up Timer		No
		Timer Back-up (at Power Off Mode)	more than	-- Min Sec

## GENERAL SPECIFICATIONS

G-9	Remote Control	Unit	RC-NV
		Glow in Dark Remocon	Yes
		Remocon Format	ORION
		Format	NEC
		Custom Code	80-63 h
		Power Source	3V UM-3 x 2 pcs
		Total Keys	42 Keys
		Keys	
		Power (Stand By)	Yes
		Display / (Status)	Yes
		Analog Menu	Yes
		Digital Menu	Yes
		Input Select	Yes
		TV/DVB-T	Yes
		Guide	Yes
		Picture Size	Yes
		1	Yes
		2	Yes
		3	Yes
		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0	Yes
		Sleep	Yes
		Mute	Yes
		Volume Up	No
		Volume Down	No
		Volume Up	Yes
		Volume Down	Yes
		CH Down	No
		CH Up	No
		Menu	No
		Up	Yes
		Down	Yes
		LEFT	Yes
		RIGHT	Yes
		Enter / CH List	Yes
		Exit	Yes
		Freeze frame	No
		TV/Radio	Yes
		Subtitle	Yes
		TEXT / TAP / TV	Yes
		Reveal / Skip	No
		Reveal	Yes
		Display Cancel	No
		HOLD / Freeze	Yes
		Red	Yes
		Green	Yes
		Yellow	Yes
		Cyan	Yes
		Normal	No
		F/T/B(Expand)	Yes
		F/T/B(Expand) / Normal	No
		Quick View	No
		Sub Page / Quick View	Yes
		Up/CH Up	No
		CH Up / Page Up	No
		CH Up / Page Up	Yes
		Down / CH Down	No
		CH Down / Page Down	No
		CH Down / Page Down	Yes
		Reset	No
		Audio 1/2	Yes
		Reset / Audio 1/2	No

## GENERAL SPECIFICATIONS

G-10	Features	Power On Memory	No
		Auto Shut Off	Yes
		Just Clock Function	No
		Game Position	No
		DNR	Yes 3D
		Comb Filter	Yes 3D
		Auto Set Up (Fast Installation)	Auto tuning (Analog tuner) CH sort: Yes ATS: Yes
			Auto clock (Analog tuner) No
		Plug in start	Yes
	Picture Setting(TV)	Picture Preference	Yes
		Brightness , Contrast , Color	Yes
		Tint	Yes
		Sharpness	Yes
		DNR	Yes
		Color Temperature	Yes
		Blue Back	Yes
		Backlight Control	Yes
		Film Mode	No
	Picture Setting(PC)	BRIGHTNESS , CONTRAST	Yes
		HOR POSITION , VER POSITION	Yes
		PHASE , CLOCK	Yes
		AUTO ADJUST	No
		RED , GREEN , BLUE	Yes
		Backlight	Yes
		WXGA INPUT	Yes
		WVGA INPUT	No
	Audio	Nicam	Yes
		Tone Control (Bass/Treble/Balance)	Yes
		Surround	Yes
		BBE	No
		SRS WOW (SRS 3D/Focus/Tru Bass)	No
		Variable Audio Out	Yes
	Tuning	Auto Tuning	Yes
		Manual Tuning	Yes
		CH Allocation	Yes
	Lock (Analog)	Panel Lock	No
		Channel Lock	No
		Hotel Lock	No
	Screen Saver	Inversion	No
		Full White	No
		Screen Saver	No
		Static Image	No
	Black Side Panel		No
	CH Label		Yes
	TText	Text type	Fastext / Toptext
		Text Language	English , French, Swedish, Hungarian, Turkish, German, Portuguese, Spanish, Italian, Greek, Slovakian, Russian, Polish, Czech, Rumanian, Estonian, Lettish, Lithuanian, Ukrainian, Croatian, Slovenian, Latvian
		Wide Mode (AUTO/4:3/FULL SCREEN/16:9/CINEMA/14:9)	Yes
		HD Zoom	Yes
		Picture Scroll (Vertical Position)	Yes
		PFC(Power Factor circuit)	Yes
		Freeze frame	Yes (w/o 720p, 1080i)
		HD-Ready	Yes
		Plug and Play	No
	Scart Spec	Scart1	AV in AV out S-Video in RGB in
			Yes (A.Tuner/D.Tuner) Yes Yes

## GENERAL SPECIFICATIONS

	Scart2	AV in	Yes
		AV out	Yes (Monitor)
		S-Video in	Yes
		RGB in	Yes
	Digital Text (VBI teletext)		Yes
	MHEG-5		Yes
	MHP		No
	EPG (BBC type 8Days Digital tuner only)		Yes
	OAD (Over Air Download)		Yes
	Common Interface (Digital tuner only)		Yes
	Rec Screen Status		Yes
	Ch sorting based on Ch List (Digital/Germany only)		Yes
	Rename Carrier (Digital)		Yes
	Edit Event Timer		Yes
	Software Update via CI Slot		Yes
	Preference Language (Audio/Subtitle/Digital Service)(Digital)		Yes
	Ch Organizer (Fav, Lock, Skip, Go To, Delete, Rename, Move, Move to)		Yes
	Parental Lock (Digital)		Yes
	DVB Subtitle (Digital)		Yes
	PC Monitor Input		Yes
	VGA (640x480)		Yes (60Hz)
	VGA (720x400)		Yes (70Hz)
	WVGA (848x480)		No
	SVGA (800x600)		Yes (60Hz)
	XGA (1024x768)		Yes (60Hz)
	WXGA (1280x768)		Yes (60Hz)
	WXGA (1280x720)		Yes (60Hz)
	WXGA (1360x768)		Yes (60Hz)
	SXGA (1280x1024)		No
	HDMI Input		Yes
	VGA (640x480)		Yes (60Hz)
	720x480i (4:3)		Yes (60Hz)
	720x480i (16:9)		Yes (60Hz)
	720x480p (4:3)		Yes (60Hz)
	720x480p (16:9)		Yes (60Hz)
	720x576i (4:3)		Yes (50Hz)
	720x576i (16:9)		Yes (50Hz)
	720x576p (4:3)		Yes (50Hz)
	720x576p (16:9)		Yes (50Hz)
	1280x720p		Yes (50/60Hz)
	1920x1080i		Yes (50/60Hz)
	Component Input		Yes
	720x480i (4:3)		Yes (60Hz)
	720x480i (16:9)		Yes (60Hz)
	720x480p (4:3)		Yes (60Hz)
	720x480p (16:9)		Yes (60Hz)
	720x576i (4:3)		Yes (50Hz)
	720x576i (16:9)		Yes (50Hz)
	720x576p (4:3)		Yes (50Hz)
	720x576p (16:9)		Yes (50Hz)
	1280x720p		Yes (50/60Hz)
	1920x1080i		Yes (50/60Hz)

## GENERAL SPECIFICATIONS

G-11	Accessories	Owner's Manual	Language w/Guarantee Card	English/German/French/Spanish/Italian/Dutch/Czech Yes (except English)
		Remote Control Unit		Yes
		Rod Antenna	Poles Terminal	No - -
		Loop Antenna (W/ Antenna Change Plug)	Terminal	No -
		U/V Mixer		No
		DC Car Cord (Center+)		No
		Guarantee Card		No
		Warning Sheet		No
		Circuit Diagram		No
		Antenna Change Plug		No
		Service Facility List		No
		Important Safeguard		No
		Quick Set-up Sheet		Yes
		Battery	UM size x pcs OEM Brand	Yes UM-3 x 2 pcs No
		AC Adapter		No
		AC Cord (for AC Adapter)		No
		AC Cord		Yes
		AV Cord (2Pin-1Pin)		No
		HDMI-DVI Cable		No
		Registration Card		No
		300 ohm to 75 ohm Antenna Adapter		No
G-12	Interface	Switch	Power (Tact)	Yes
			System Select	No
			Main Power SW	No
			Channel Up/Menu Up	Yes
			Channel Down/Menu Down	Yes
			Volume Up/Menu >	Yes
			Volume Down/Menu <	Yes
			Input Select/Enter	Yes
			Menu	Yes
		Indicator	Power/Stand-by/EPG Timer	Yes(GREEN / RED / ORANGE)
			On Timer	No
		Terminals	Side	
			Video Input 1	RCA x 1
			Audio Input 1	RCA x 2(L/MONO, R)
			S- Input 1	Yes
			Video Input 2	No
			Audio Input 2	No
			S- Input 2	No
			Video Output	No
			Audio Output	RCA x 2(Variable) (L, R)
			Digital Audio Out (Coaxial)	Yes
			Other Terminal	No
			Euro Scart (21Pin)	2Scart
			Component In	Yes
			Audio Input (Component In use)	RCA x 2(L/MONO, R)
			PC Monitor Input (D-Sub)	Yes
			Audio Input	Mini Pin Jack(ø 3.5), STEREO
			HDMI Input 1	Yes
			Audio Input (HDMI/DVI In use)	PC Monitor Audio Input Alternative
			HDMI Input 2	Yes
			Audio Input (HDMI/DVI In use)	Mini Pin Jack(ø 3.5), STEREO
			Sub Woofer Output	No
			Diversity	No
			Ext Speaker	No
			DC Jack 12V(Center +)	No
			VHF/UHF Antenna Input	DIN Type
			AC Inlet	Yes
			Other Terminal	Headphone
			CI Card Slot	Yes
G-13	Set Size	Approx.	W x D x H (mm)	796.5 x 282 x 581
		w/o Stand,Handle Approx.	W x D x H (mm)	796.5 x 116 x 534

## GENERAL SPECIFICATIONS

G-14	<b>Weight</b>	Net Approx.	13.2kg (29.1 lbs)	
		Net w/o Stand,Handle Approx.	12.0kg (26.5 lbs)	
		Gross Approx.	16.5kg (36.4 lbs)	
G-15	<b>Carton</b>	Master Carton	No	
		Content	--- Sets	
		Material	-- /--	
		Dimensions W x D x H(mm)	-- X -- X --	
		Description of Origin	No	
	<b>Gift Box</b>		Yes	
		Material	Double/Brown	
		Dimensions W x D x H(mm)	917 x 340 x 700	
		Design	As per Buyer's	
		Description of Origin	No	
G-16	<b>Material</b>	Drop Test	Natural Dropping At 1 Corner / 3 Edges / 6 Surfaces	
		Height (cm)	62	
		Container Stuffing	261 Sets/40' container	
		Cabinet	PC+ABS 94V0 NON-HALOGEN	
G-17	<b>Environment</b>	Cabinet Front	'PS 94HB	
		Cabinet Rear		
		PCB	No	
		Non-Halogen		
		Eyelet	Yes	
		WEEE	Yes	
<b>Environmental standard requirement</b>		Green procurement of ORION		
Pb- Free		Phase3(PHASE3A)		
Measures for Whisker		Yes		

## DISASSEMBLY INSTRUCTIONS

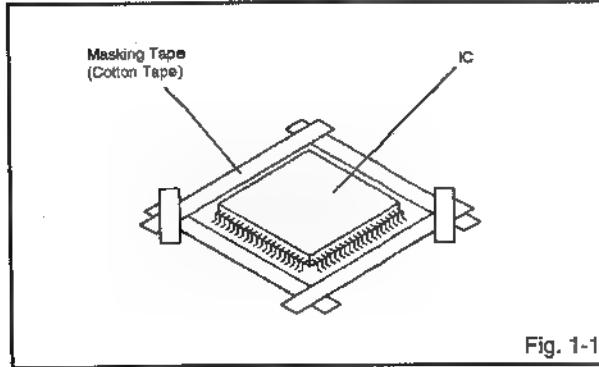
### 1. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

#### REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. (Refer to Fig. 1-1.)

#### NOTE

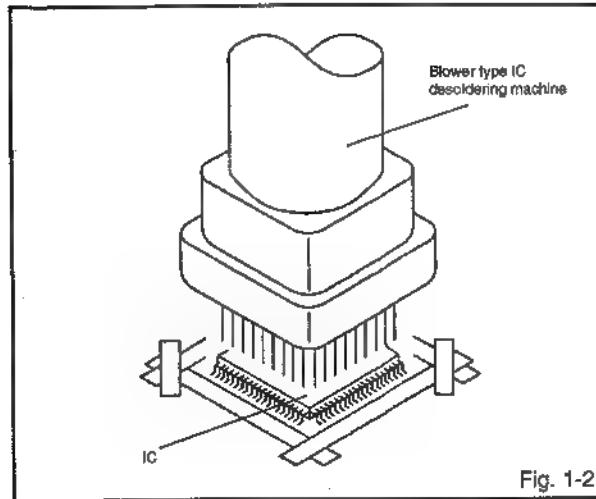
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. (Refer to Fig. 1-2.)

#### NOTE

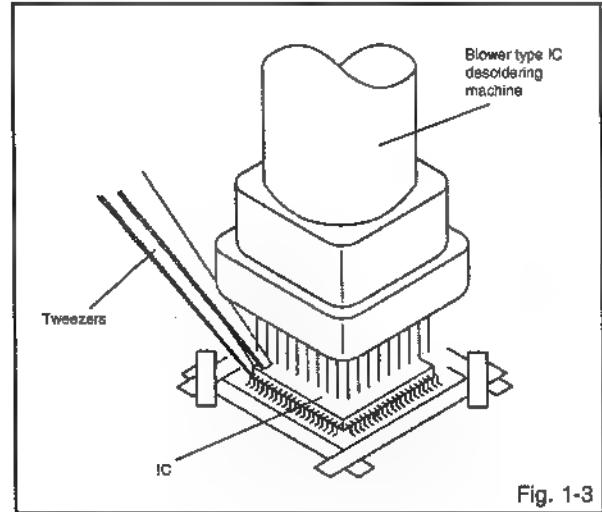
Do not rotate or move the IC back and forth until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 1-3.)

#### NOTE

Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.

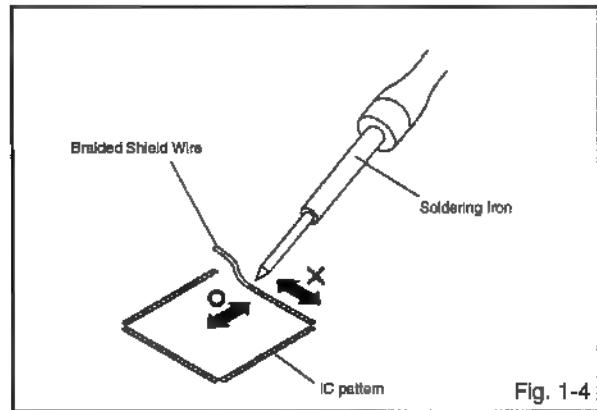


4. Peel off the Masking Tape.

5. Absorb the solder left on the pattern using the Braided Shield Wire. (Refer to Fig. 1-4.)

#### NOTE

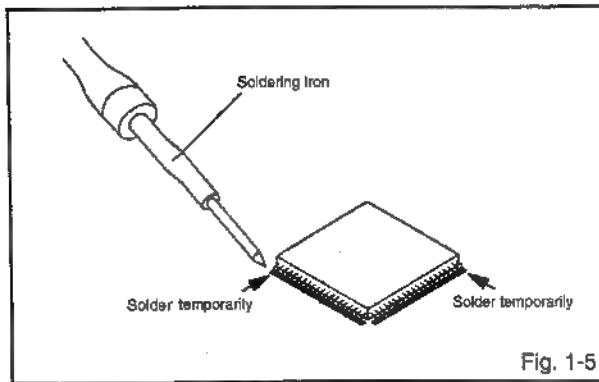
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



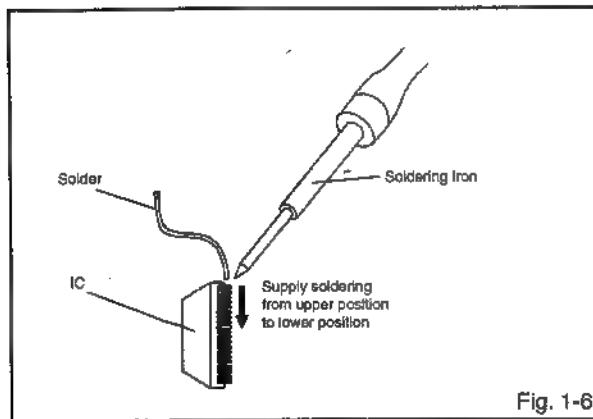
## DISASSEMBLY INSTRUCTIONS

### INSTALLATION

- Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. (Refer to Fig. 1-5.)



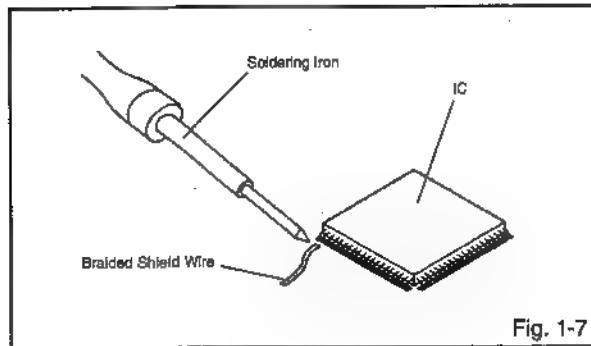
- Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 1-6.)



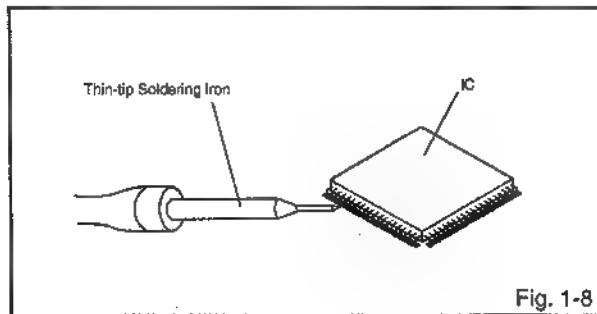
- Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 1-7.)

#### NOTE

Do not absorb the solder to excess.



- When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 1-8.)



- Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

#### NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

## SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remote Key	Standard Time	Operations
POWER ON	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
POWER ON	VOL. DOWN (Minimum)	2	2 sec.	Check of the SUM DATA and MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
DTV mode	VOL. DOWN (Minimum)	3	2 sec.	Initialization of password of PARENTAL LOCK (DIGITAL). Refer to the "PARENTAL CONTROL-RATING LEVEL".
POWER ON	VOL. DOWN (Minimum)	6	2 sec.	POWER ON total hours are displayed on the screen. Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
POWER ON	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

## WHEN REPLACING EEPROM (MEMORY) IC

### CONFIRMATION OF CHECK SUM, MICON VERSION AND DIGITAL TV MICON FIRMWARE AND POWER ON TOTAL HOURS

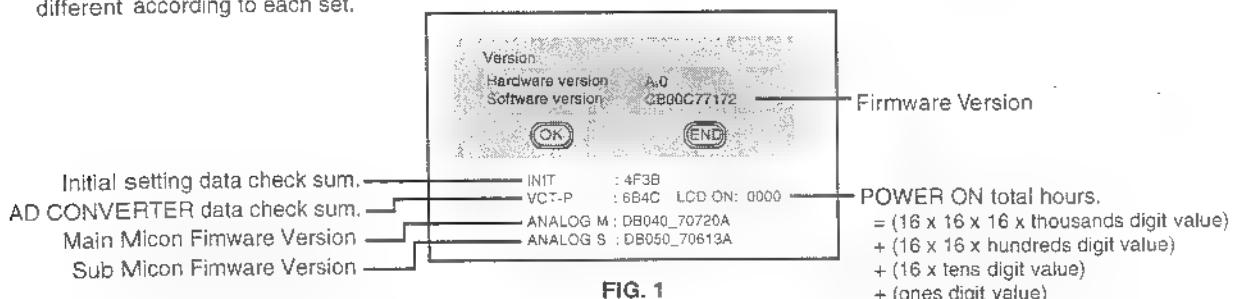
Initial total of MEMORY IC, MICON VERSION, Digital TV MICON Firmware and POWER ON TOTAL HOURS can be checked on the screen. Total hours are displayed in 16 system of notation.

**NOTE:** If you set a factory initialization, the total hours is reset to "0".

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (2) on the remote control for more than 2 seconds.
4. After the confirmation of MICON VERSION and Digital TV MICON Firmware, turn off the power.  
ADDRESS and DATA should appear as FIG 1.

**NOTE:** The each item value might be different according to each set.



### CONFIRMATION OF INITIAL DATA

If service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (6) on the remote control for more than 2 seconds.  
ADDRESS and DATA should appear as FIG 2.

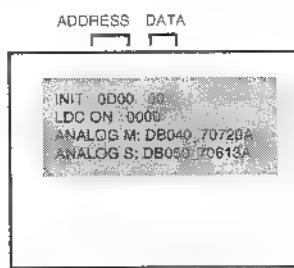


FIG. 2

4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press LEFT/RIGHT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing LEFT/RIGHT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

**After the data input, set to the initializing of shipping.**

10. Turn on the POWER on.
11. Set the VOLUME to minimum.
12. Press both VOL. DOWN button on the set and Channel button (1) on the remote control for more than 2 seconds.
13. After the finishing of the initializing of shipping, the unit will turn off automatically.

The unit will now have the correct DATA for the new MEMORY IC.

## WHEN REPLACING EEPROM (MEMORY) IC

### CONFIRMATION OF CHECK SUM, MICON VERSION AND DIGITAL TV MICON FIRMWARE AND POWER ON TOTAL HOURS

Initial total of MEMORY IC, MICON VERSION, Digital TV MICON Firmware and POWER ON TOTAL HOURS can be checked on the screen. Total hours are displayed in 16 system of notation.

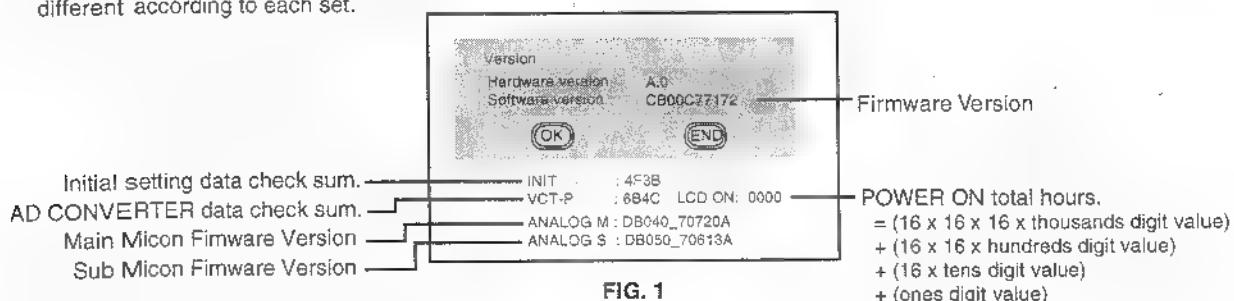
**NOTE:** If you set a factory initialization, the total hours is reset to "0".

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (2) on the remote control for more than 2 seconds.
4. After the confirmation of MICON VERSION and Digital TV MICON Firmware, turn off the power.

ADDRESS and DATA should appear as FIG 1.

**NOTE:** The each item value might be different according to each set.



### CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button (6) on the remote control for more than 2 seconds.

ADDRESS and DATA should appear as FIG 2.

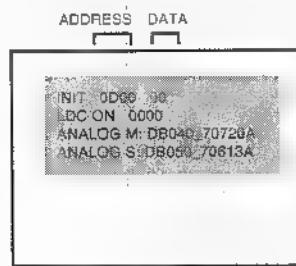


FIG. 2

4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press LEFT/RIGHT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing LEFT/RIGHT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

**After the data input, set to the initializing of shipping.**

10. Turn on the POWER on.
11. Set the VOLUME to minimum.
12. Press both VOL. DOWN button on the set and Channel button (1) on the remote control for more than 2 seconds.
13. After the finishing of the initializing of shipping, the unit will turn off automatically.

The unit will now have the correct DATA for the new MEMORY IC.

## ELECTRICAL ADJUSTMENTS

### 1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

#### CAUTION

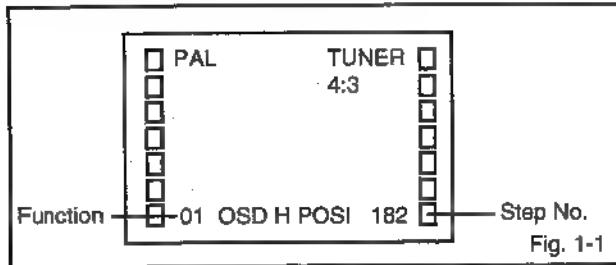
- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor).

**Prepare the following measurement tools for electrical adjustments.**

#### 1. Pattern Generator

#### On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (9) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in Fig. 1-1.



3. Use the UP/DOWN button or Channel button (0-9) on the remote control to select the options shown in Fig. 1-2.
4. Press the INPUT SELECT button on the remote control to end the adjustments.
5. To display the adjustment screen for TUNER, AV, COMPONENT, HDMI and PC mode, press the INPUT SELECT button on the remote control to set to the TUNER, AV, COMPONENT, HDMI and PC mode. Press the VOL.DOWN button on the set and the channel (9) on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION
01	OSD H POSI	23	H POSI MIN
02	OSD V POSI	24	V POSI
03	■ DRIVE(N)	25	V POSI MAX
04	R CUT OFF(N)	26	V POSI MIN
05	G DRIVE(N)	27	BACKLIGHT CENTER
06	G CUT OFF(N)	28	BACKLIGHT MAX
07	B DRIVE(N)	29	BACKLIGHT MIN
08	B CUT OFF(N)	30	BRIGHT CENTER
09	R DRIVE(C)	31	BRIGHT MAX
10	R CUT OFF(C)	32	BRIGHT MIN
11	G DRIVE(C)	33	TINT CENTER
12	G CUT OFF(C)	34	CONTRAST CENTER
13	B DRIVE(C)	35	CONTRAST MAX
14	B CUT OFF(C)	36	CONTRAST MIN
15	R DRIVE(W)	37	CONTRAST 40
16	R CUT OFF(W)	38	COLOR CENTER
17	G DRIVE(W)	39	COLOR MAX
18	G CUT OFF(W)	40	COLOR MIN
19	B DRIVE(W)	41	TEXT H POSI
20	B CUT OFF(W)	42	TEXT V POSI
21	H POSI	43	FLICKER ADJ
22	H POSI MAX		

Fig. 1-2

### 2. BASIC ADJUSTMENTS

#### 2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Press the INPUT SELECT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of Fig. 1-1 and press the channel button (03) on the remote control to select "R DRIVE(N)".
6. Press the CH. UP/DOWN button on the remote control to select the "R DRIVE(N)", "R CUT OFF(N)", "G DRIVE(N)", "G CUT OFF(N)", "B DRIVE(N)", "B CUT OFF(N)", "R DRIVE(C)", "R CUT OFF(C)", "G DRIVE(C)", "G CUT OFF(C)", "B DRIVE(C)", "B CUT OFF(C)", "R DRIVE (W)", "R CUT OFF(W)", "G DRIVE(W)", "G CUT OFF(W)", "B DRIVE(W)" or "B CUT OFF(W)".
7. Adjust the LEFT/RIGHT button on the remote control to whiten the R DRIVE(N), R CUT OFF(N), G DRIVE(N), G CUT OFF(N), B DRIVE(N), B CUT OFF(N), R DRIVE(C), R CUT OFF(C), G DRIVE(C), G CUT OFF(C), ■ DRIVE(C), B CUT OFF(C), R DRIVE (W), R CUT OFF(W), G DRIVE(W), G CUT OFF(W), B DRIVE(W) or B CUT OFF(W) at each step tone sections equally.
8. Perform the above adjustments 6 and 7 until the white achieved.

## ELECTRICAL ADJUSTMENTS

### 2-2: CONTRAST MAX

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of Fig. 1-1 and press the channel button (35) on the remote control to select "CONTRAST MAX".
5. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "49".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of Fig. 1-1 and press the channel button (35) on the remote control to select "CONTRAST MAX".
11. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "49".
12. Check if the picture is normal.
13. Receive the color bar pattern. (AV RGB Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the AV(RGB) mode. Then perform the above adjustments 11-13.
16. Receive the color bar pattern. (S-VIDEO Input)  
Using the remote control, set the brightness and contrast to normal position.
17. Press the INPUT SELECT button on the remote control to set to the AV3(Y/C) mode. Then perform the above adjustments 11-13.
18. Receive the color bar pattern. (COMPONENT Input)
19. Using the remote control, set the brightness and contrast to normal position.
20. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
21. Activate the adjustment mode display of Fig. 1-1 and press the channel button (35) on the remote control to select "CONTRAST MAX".
22. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "54".
23. Check if the picture is normal.
24. Receive the color bar pattern. (HDMI Input)
25. Using the remote control, set the brightness and contrast to normal position.
26. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
27. Activate the adjustment mode display of Fig. 1-1 and press the channel button (35) on the remote control to select "CONTRAST MAX".
28. Press the LEFT/RIGHT button on the remote control until the contrast step No. becomes "55".
29. Check if the picture is normal.

## ELECTRICAL ADJUSTMENTS

2-3: Continuation of Fixed Value (Step No.)

Please check if the fixed values of such the adjustment item is set correctly referring below. (TUNER/AVCOMPONENT/INPUT/CAPACITY)

NO.	FUNCTION	AV		COMPONENT(PAL)				HDTV(NTSC)				MONITOR				PC				DTV				
		TUNER	CVBS	S(Y/C)	R/G/B	480p	480p	1080i	480i	480p	VGA	720p	1080i	576i	576p	720p	1080i	840x480	720x480	800x600	720x600	1024x768	1280x720	1280x768
1	CSD H POSI	162	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182
2	CSD V POSI	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
3	R DRIVE(N)	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736
4	R CUT OFF(N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	G DRIVE(N)	*746	*750	*750	*747	*748	*746	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748	*748
6	G CUT OFF(N)	0	*3	*4	*4	*4	*2	*3	*4	*5	*4	*5	*4	*5	*4	*5	*4	*5	*4	*5	*4	*5	*4	*5
7	B DRIVE(N)	776	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770	770
8	B CUT OFF(N)	*15	*12	*16	*16	*12	*16	*13	*13	*16	*14	*15	*14	*15	*14	*15	*14	*15	*14	*15	*14	*15	*14	*15
9	R DRIVE(C)	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736
10	R CUT OFF(C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	G DRIVE(C)	796	800	813	813	813	801	801	801	801	801	801	801	801	801	801	801	801	801	801	801	801	801	801
12	G CUT OFF(C)	*9	*4	*10	*10	*7	*9	*6	*8	*9	*8	*9	*8	*9	*8	*9	*8	*9	*8	*9	*8	*9	*8	*9
13	R DRIVE(C)	835	841	842	842	844	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841	841
14	R CUT OFF(C)	*21	*18	*19	*19	*17	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19
15	R DRIVE(W)	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736	736
16	R CUT OFF(W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	B DRIVE(W)	712	710	708	712	708	704	704	712	711	704	704	712	711	711	711	712	712	712	712	712	712	712	712
18	B CUT OFF(W)	*1	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3
19	B DRIVE(W)	720	707	704	704	715	708	708	703	714	711	705	704	712	710	710	711	710	708	707	710	709	709	709
20	B CUT OFF(W)	*16	*9	*17	*17	*11	*10	*9	*9	*12	*10	*11	*10	*11	*10	*11	*10	*9	*8	*8	*8	*8	*8	*8
21	H POS 60Hz 1.3 (PC)	242	242	221	221	216	-	-	-	455	212	-	-	-	-	-	-	51	1	-	-	-	-	-
22	H POS 60Hz 1.3 (OTHER PC)	242	242	221	221	216	-	-	-	365	212	-	-	-	-	-	51	1	138	38	-	-	-	
23	H POS 60Hz 1.3 (PC)	220	220	220	220	216	-	160	303	283	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	H POS MAX (PC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	H POS MIN (PC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	V POS 50Hz FULL SCREEN (PC)	28	27	28	-	-	-	-	-	26	52	22	18	-	-	-	16	45	24	19	-	-	-	-
27	V POS 60Hz FULL SCREEN (PC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	V POS MIN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	BACKLIGHT CENTER	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
30	BACKLIGHT MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	BRIGHT CENTER	10	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
32	BRIGHT MAX	40	40	30	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
33	BRIGHT MIN	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64	-64
34	TINT CENTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	CONTRAST CENTER	*37	*38	*39	*39	*38	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39	*39
36	CONTRAST MAX	*49	*53	*49	*56	*55	*53	*53	*54	*55	*55	*55	*55	*55	*55	*55	*55	*55	*55	*55	*55	*55	*55	*55
37	CONTRAST MIN	19	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
38	COLOR CENTER	45	42	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
39	COLOR MAX	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63
40	COLOR MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	TEXT H POSI	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
42	TEXT V POSI	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

NOTE: For the step **■** with **\***, mark, please adjust it according to the condition of the set.

## ELECTRICAL ADJUSTMENTS

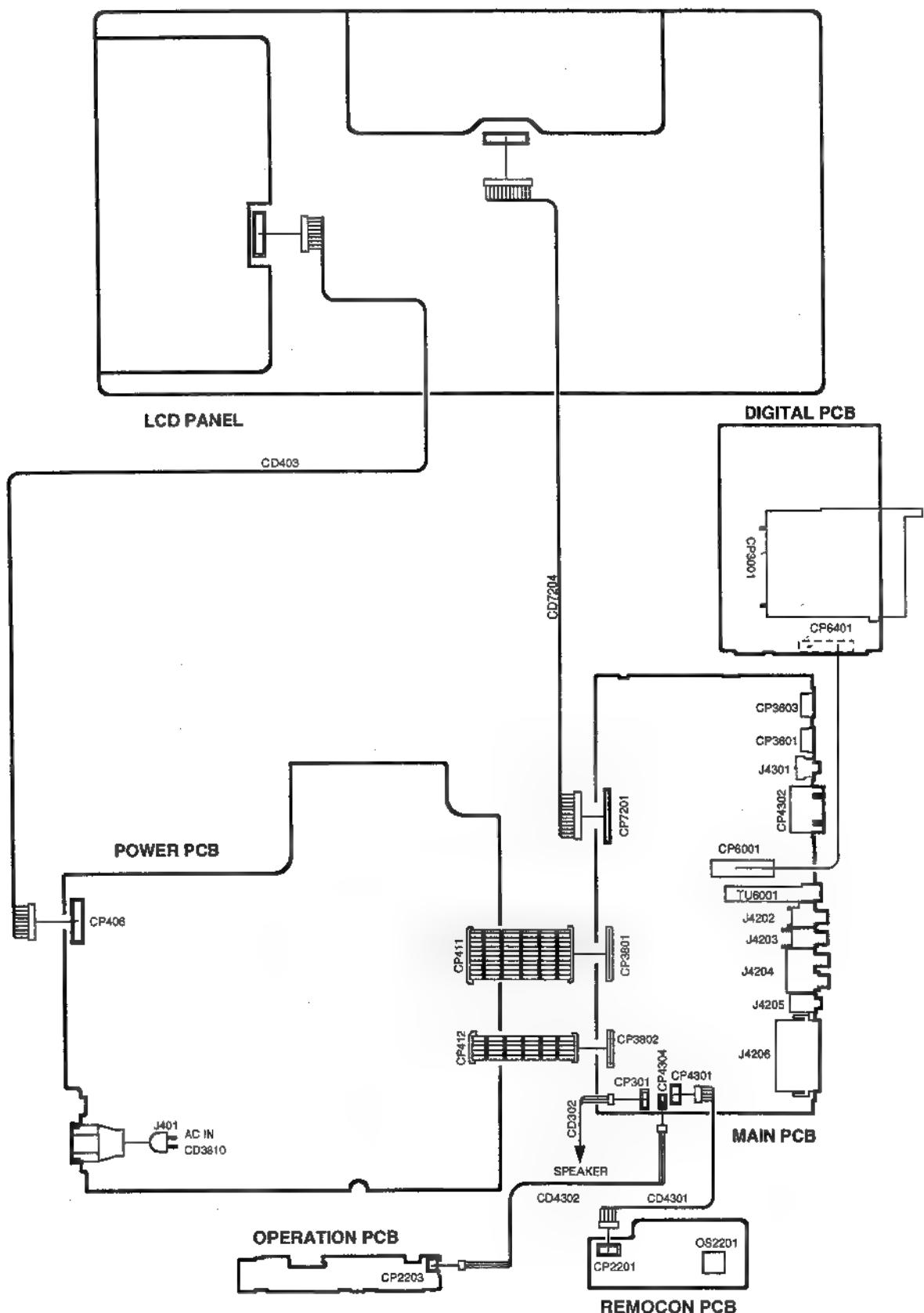
**4- Confirmation of Fixed Value** (Step 3b)

**NOTE:** For the item not with a mark, draw what you see in the situation of the next page.

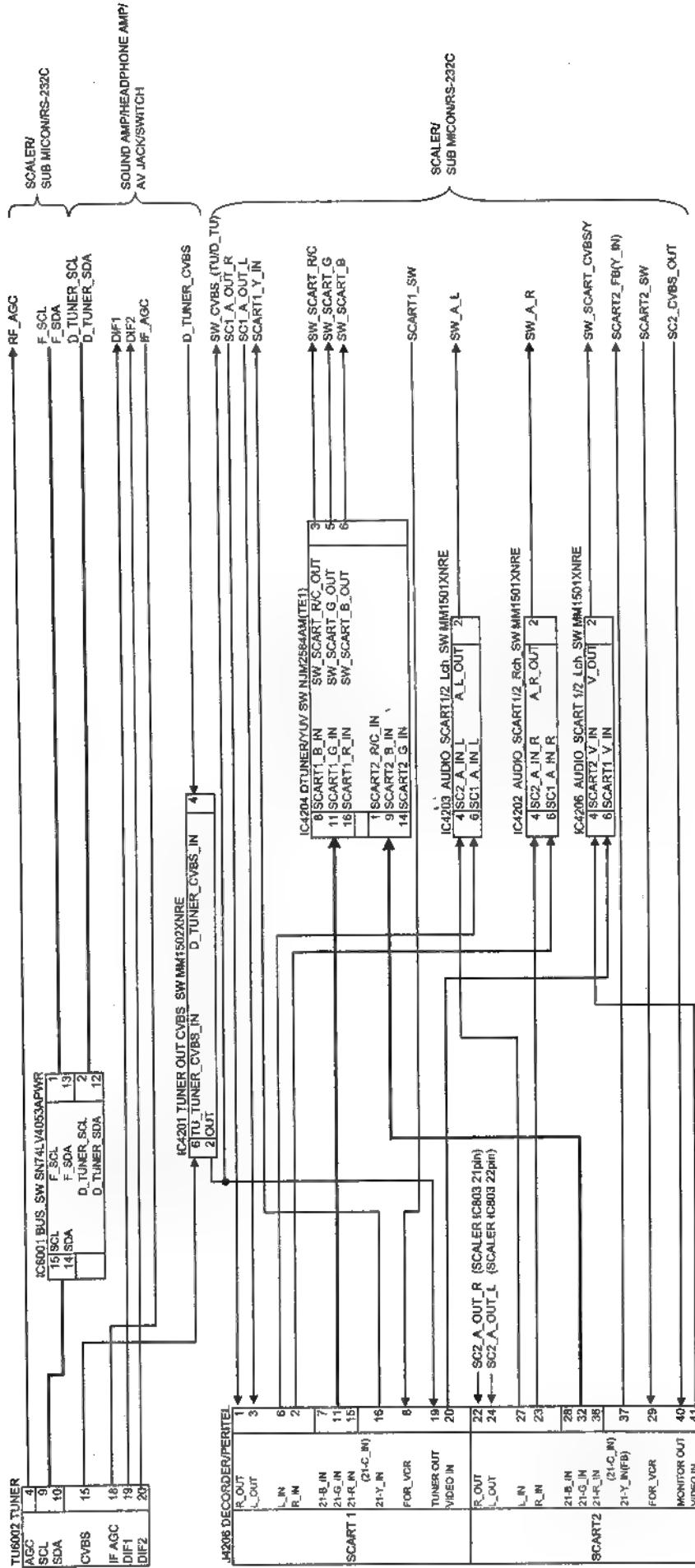
20

## ELECTRICAL ADJUSTMENTS

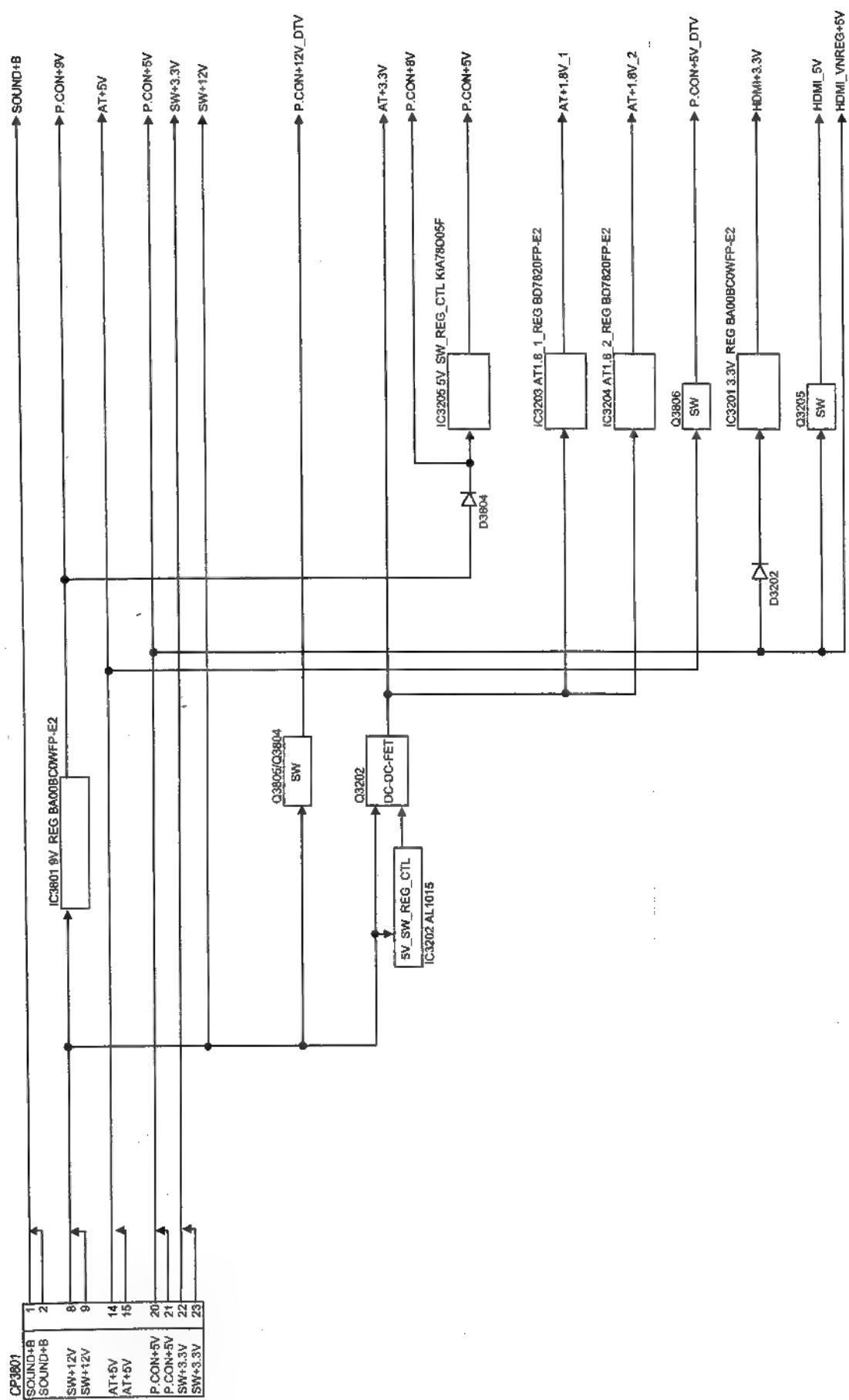
### 3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



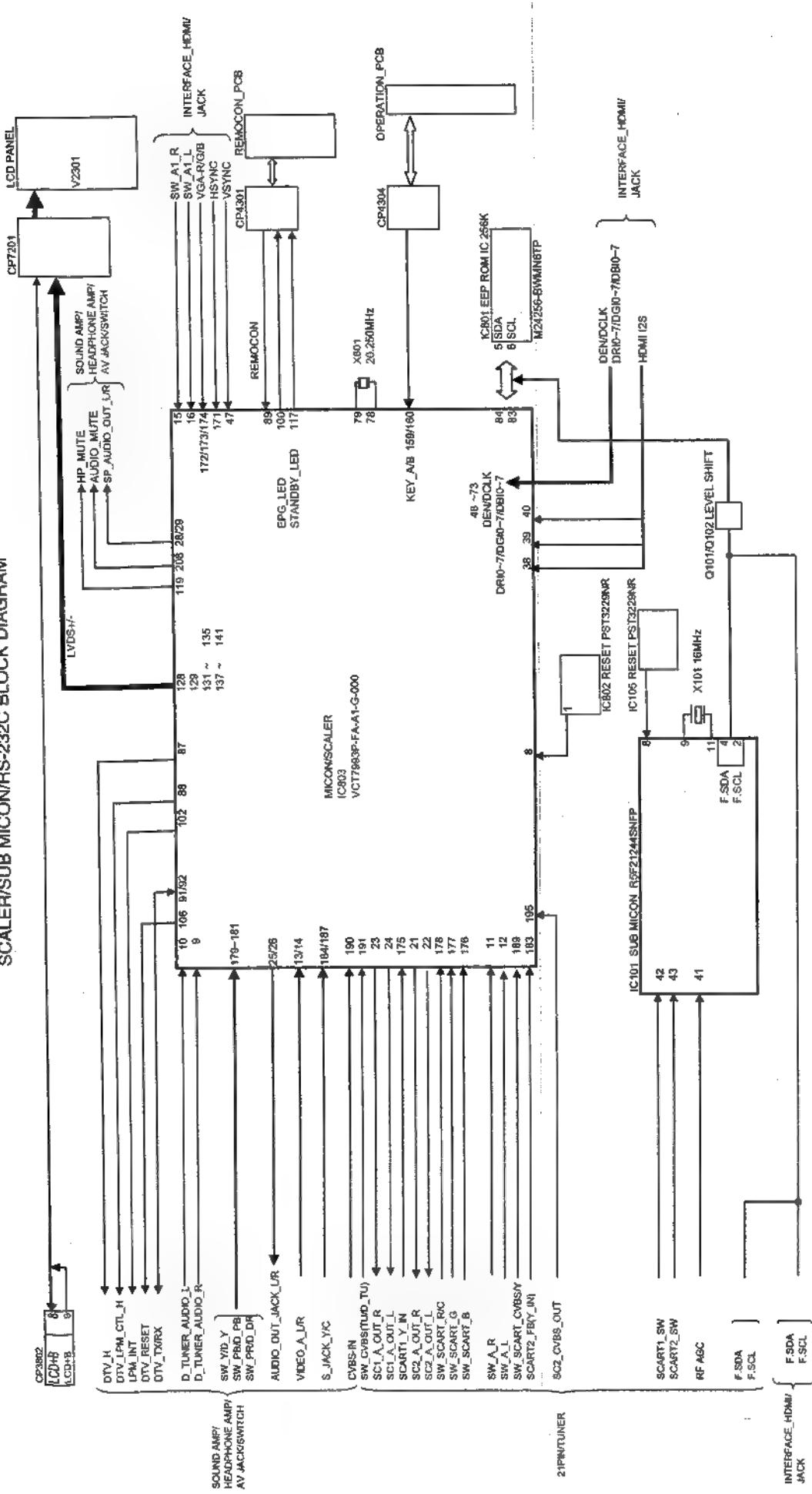
## 21PIN/TUNER BLOCK DIAGRAM



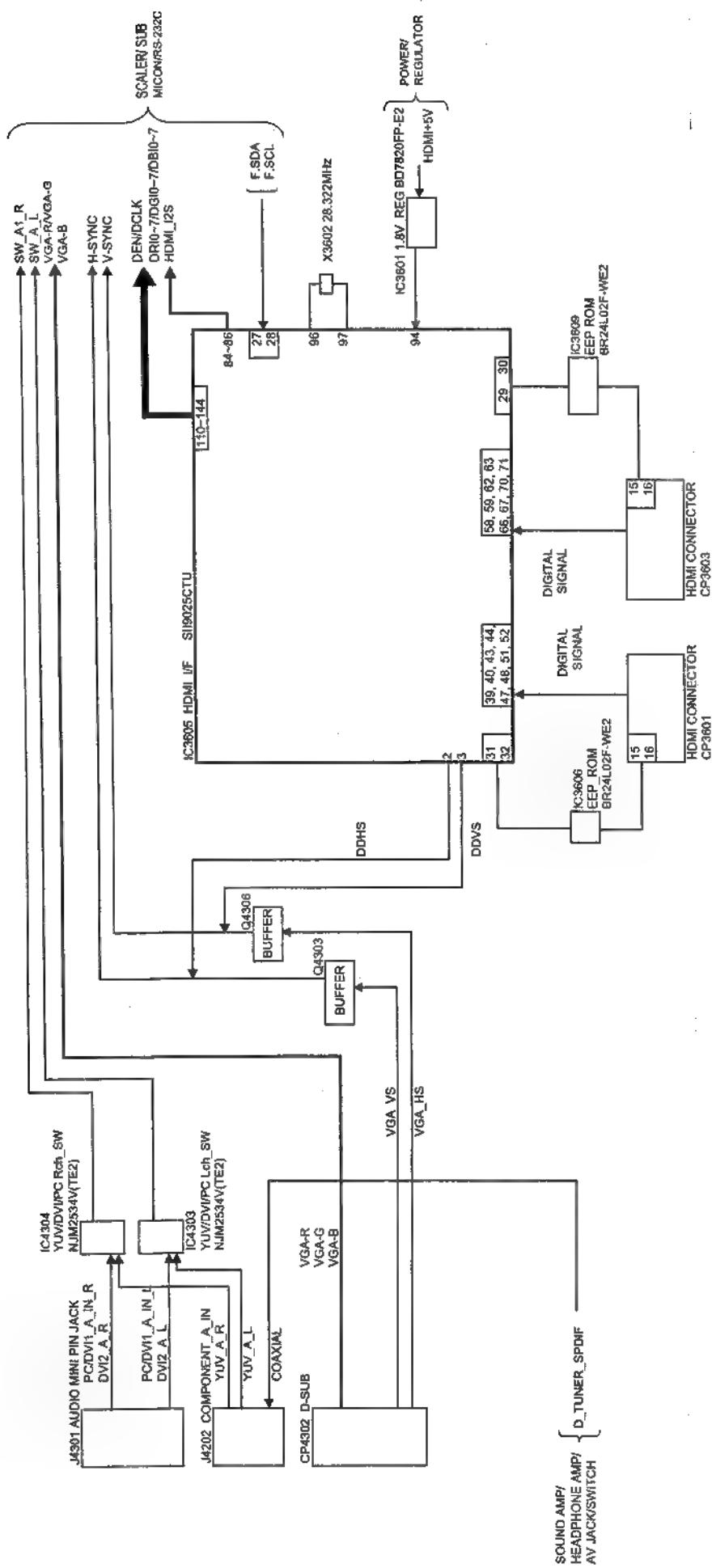
## POWER/REGULATOR BLOCK DIAGRAM



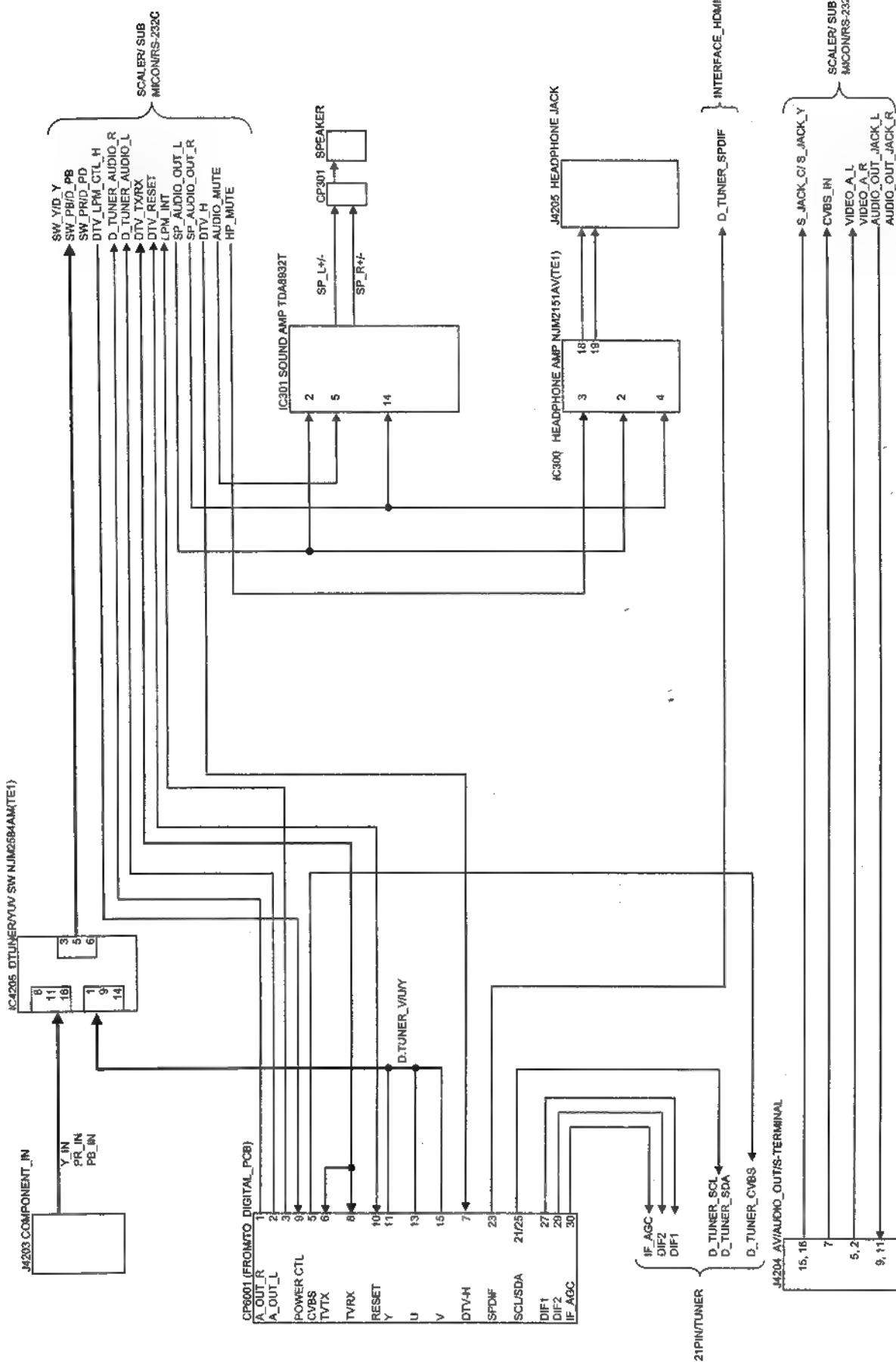
## SCALER/SUB MICON/RS-232C BLOCK DIAGRAM



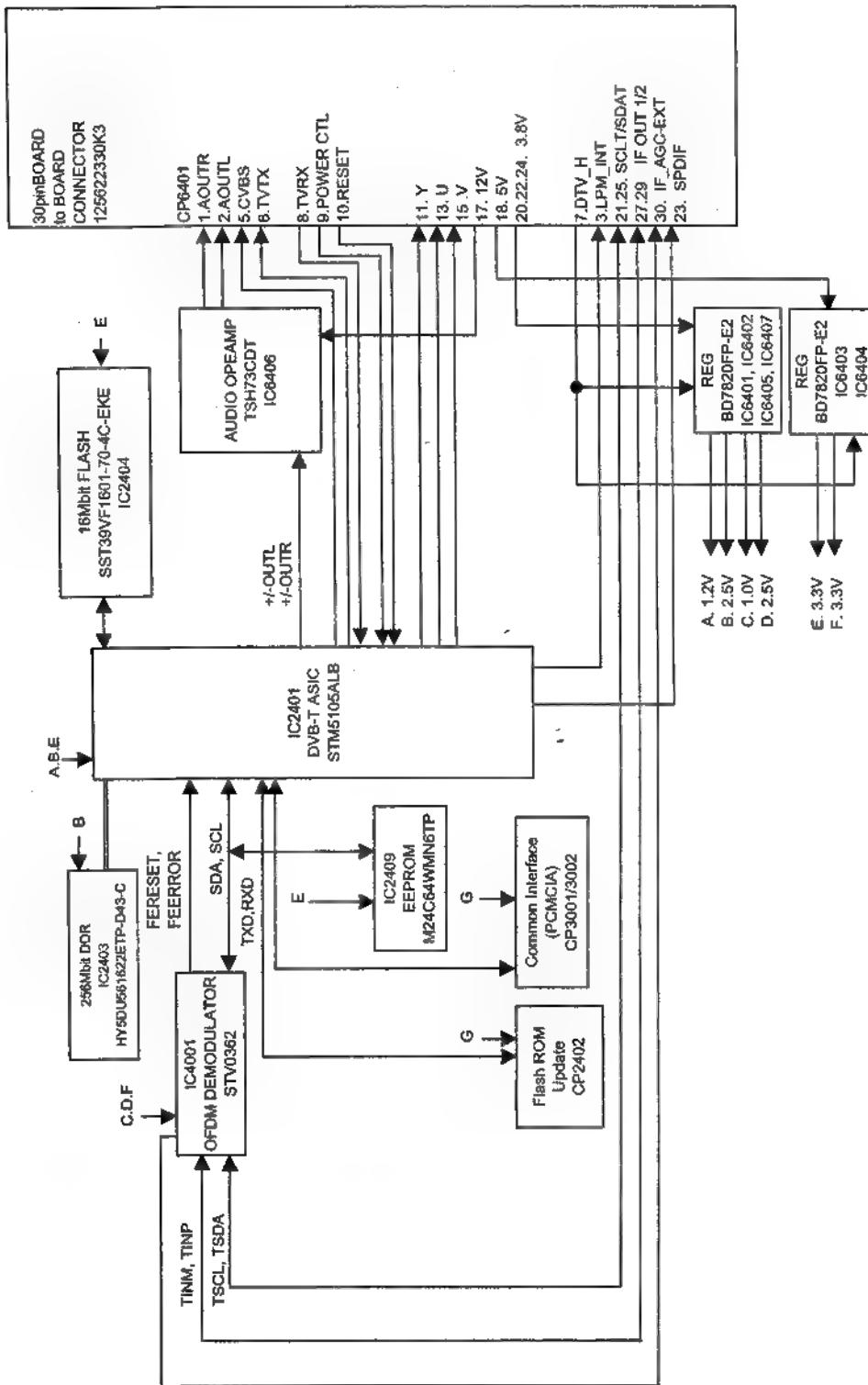
## INTERFACE\_HDMI/JACK BLOCK DI AGRAM



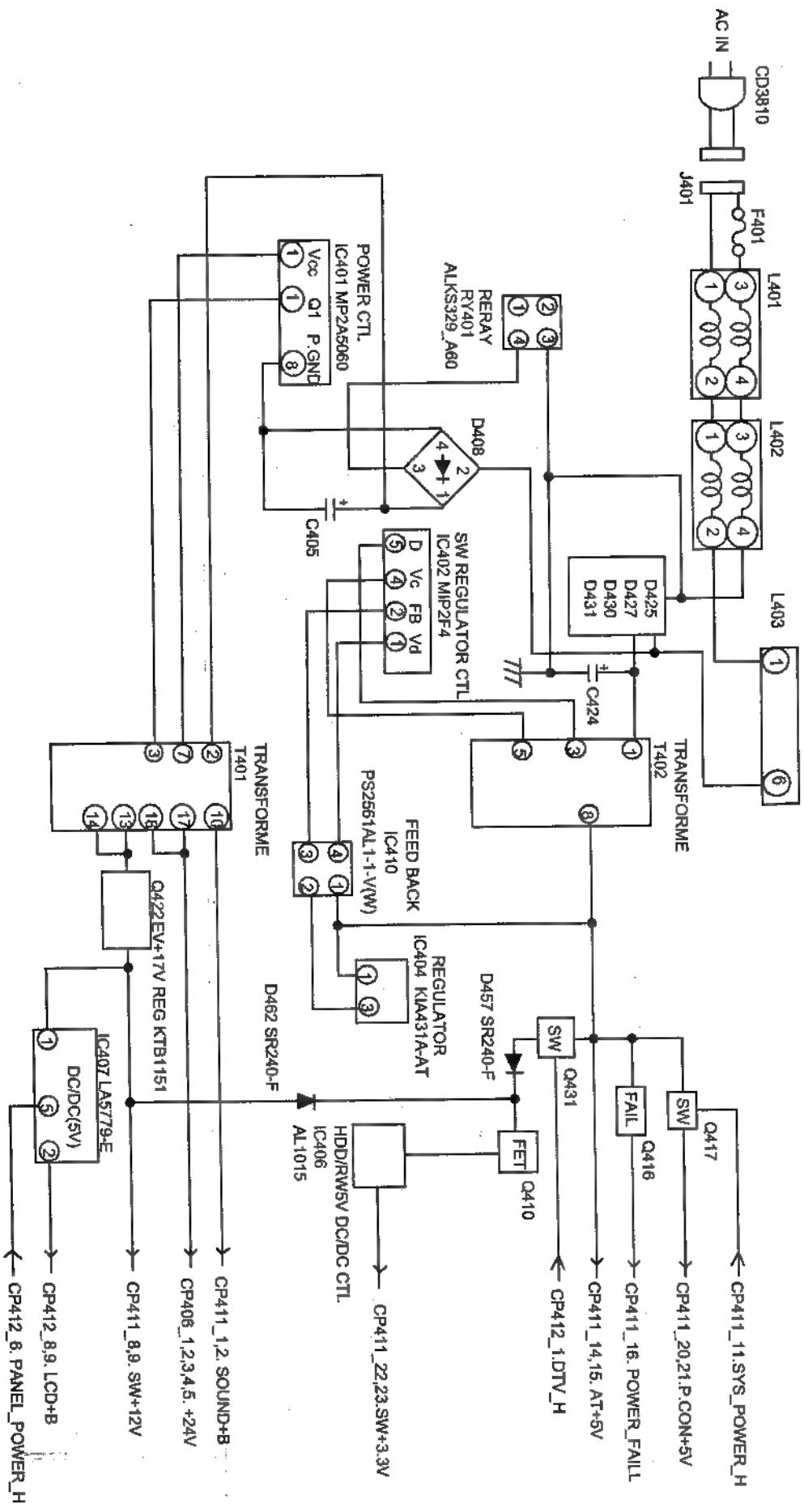
## SOUND AMP/HEADPHONE AMP/AV JACK/SWITCH BLOCK DI AGRAM



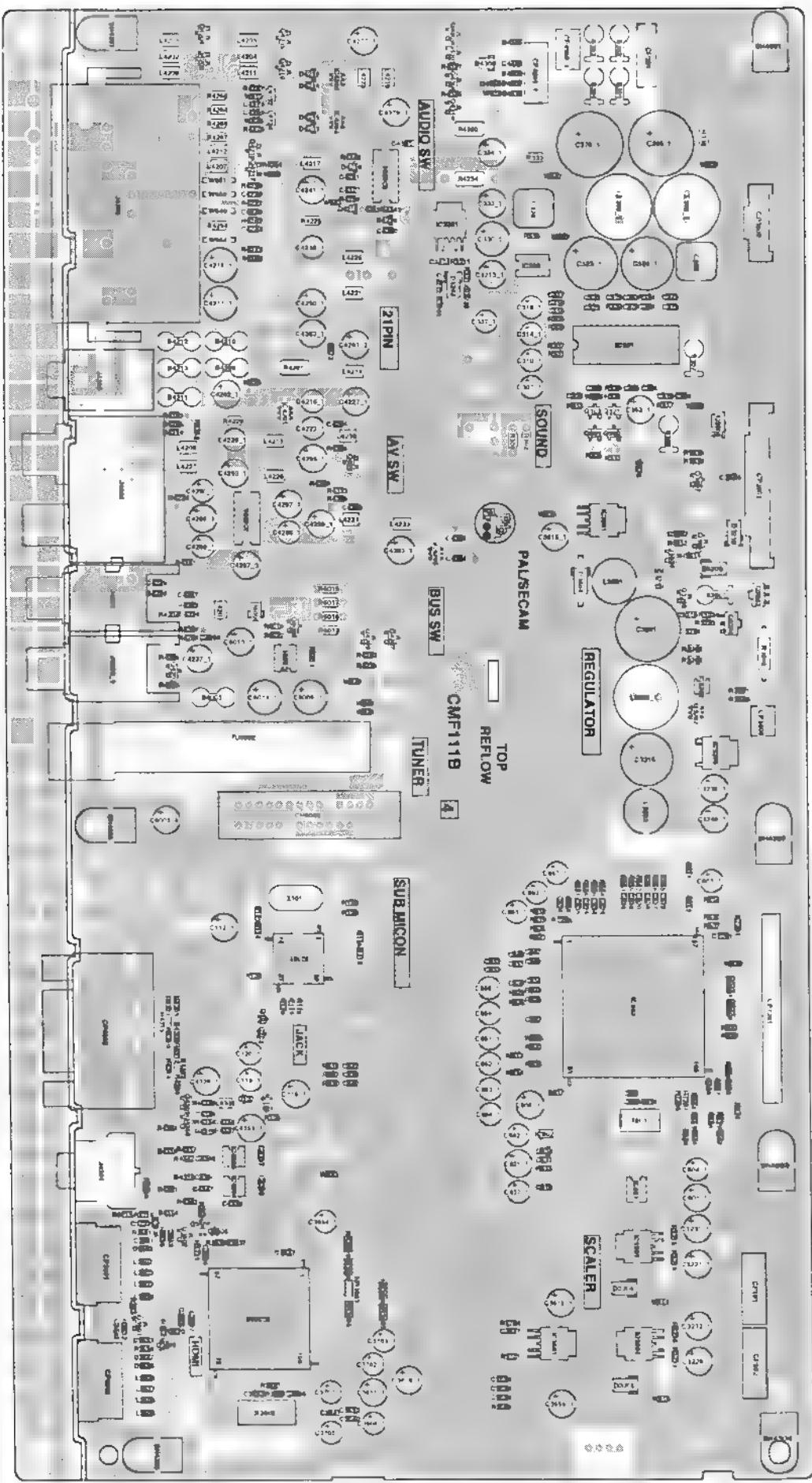
## DIGITAL BLOCK DIAGRAM



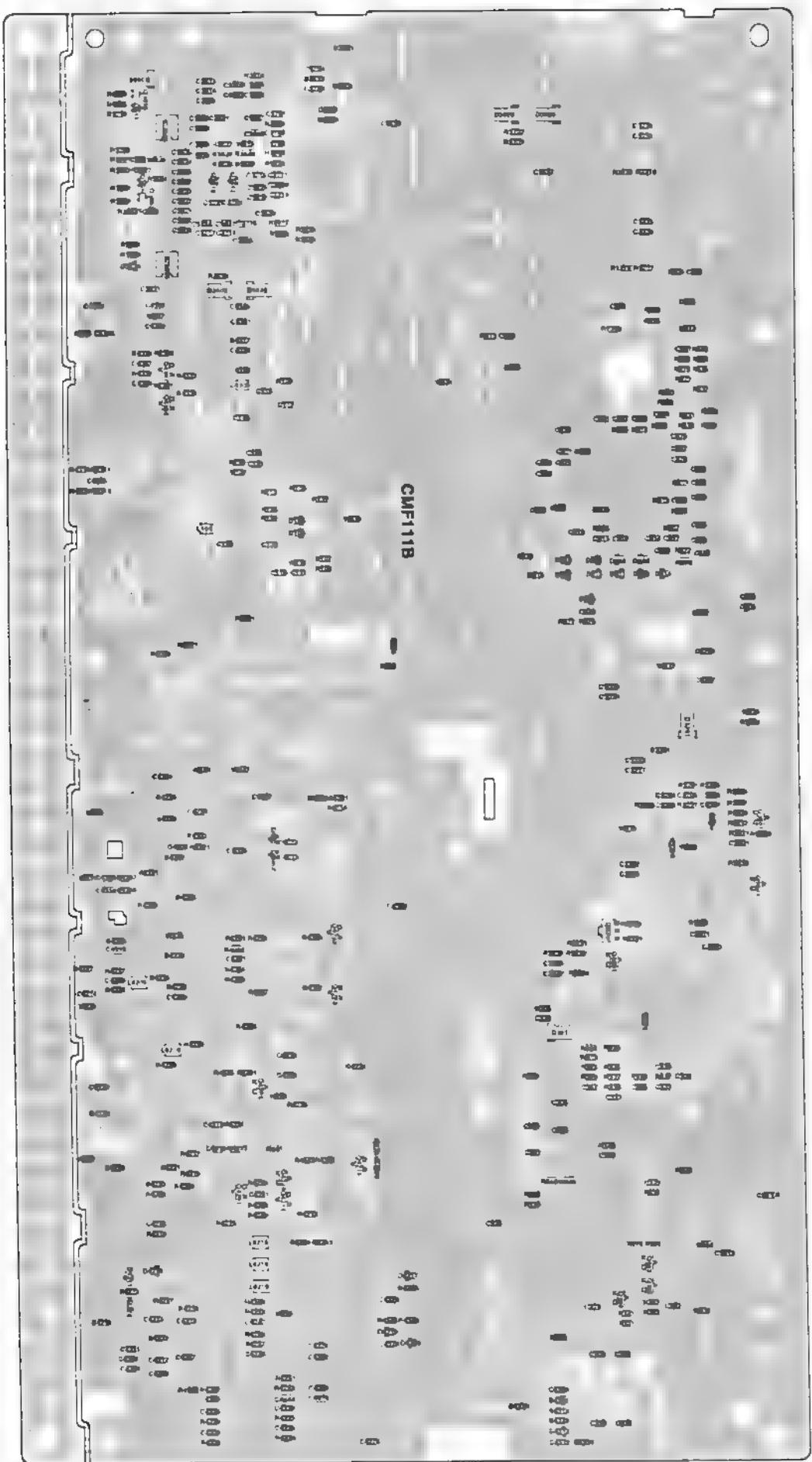
## POWER(POWER PCB) BLOCK DIAGRAM



**PRINTED CIRCUIT BOARDS  
MAIN (TOP SIDE)**



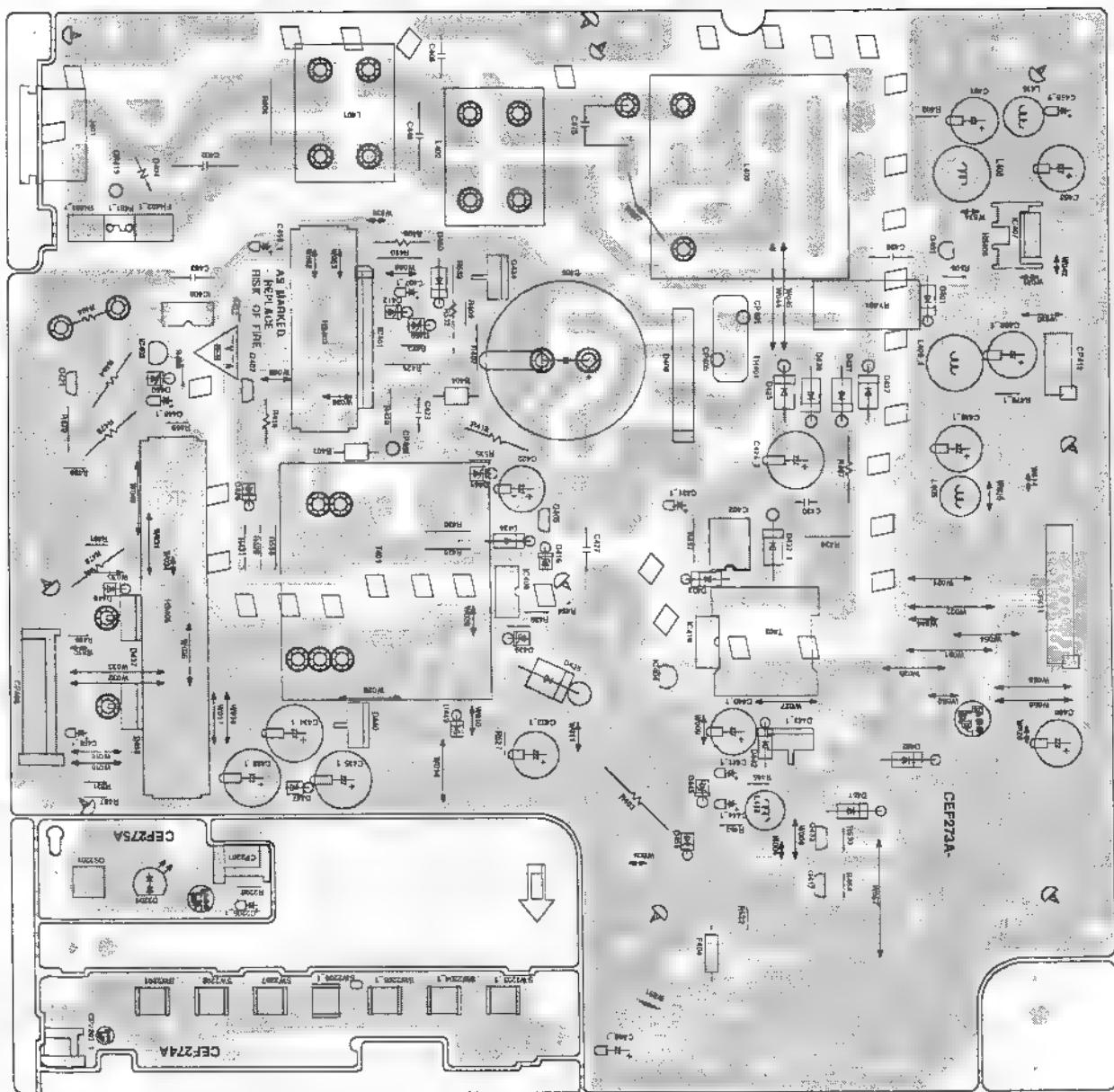
**PRINTED CIRCUIT BOARDS  
MAIN (BOTTOM SIDE)**



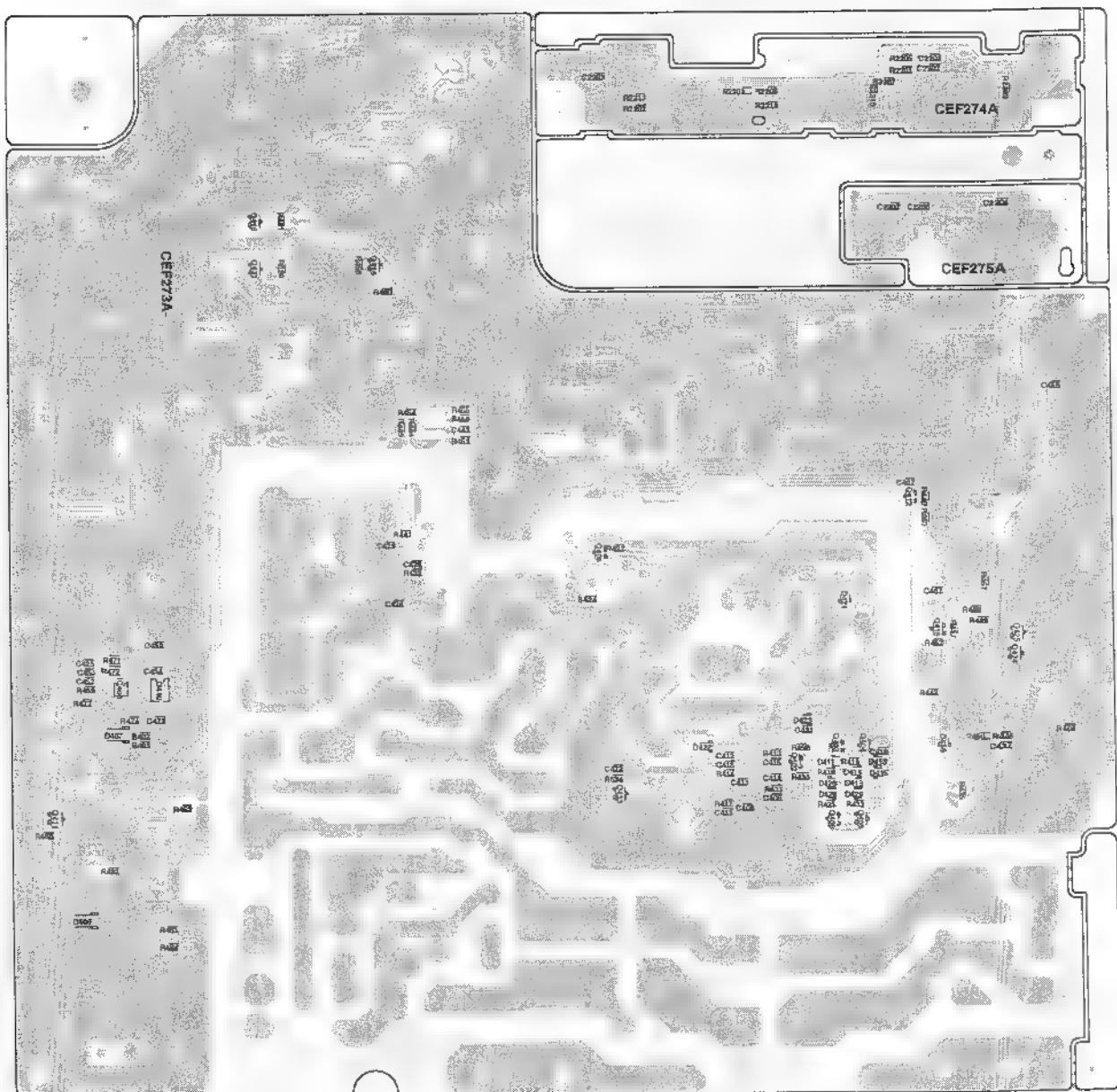
F-3

F-4

**PRINTED CIRCUIT BOARDS  
POWER/OPERATION/REMOCON (INSERTED PARTS)  
SOLDER SIDE**



**PRINTED CIRCUIT BOARDS  
POWER/OPERATION/REMOCON (CHIP MOUNTED PARTS)  
SOLDER SIDE**

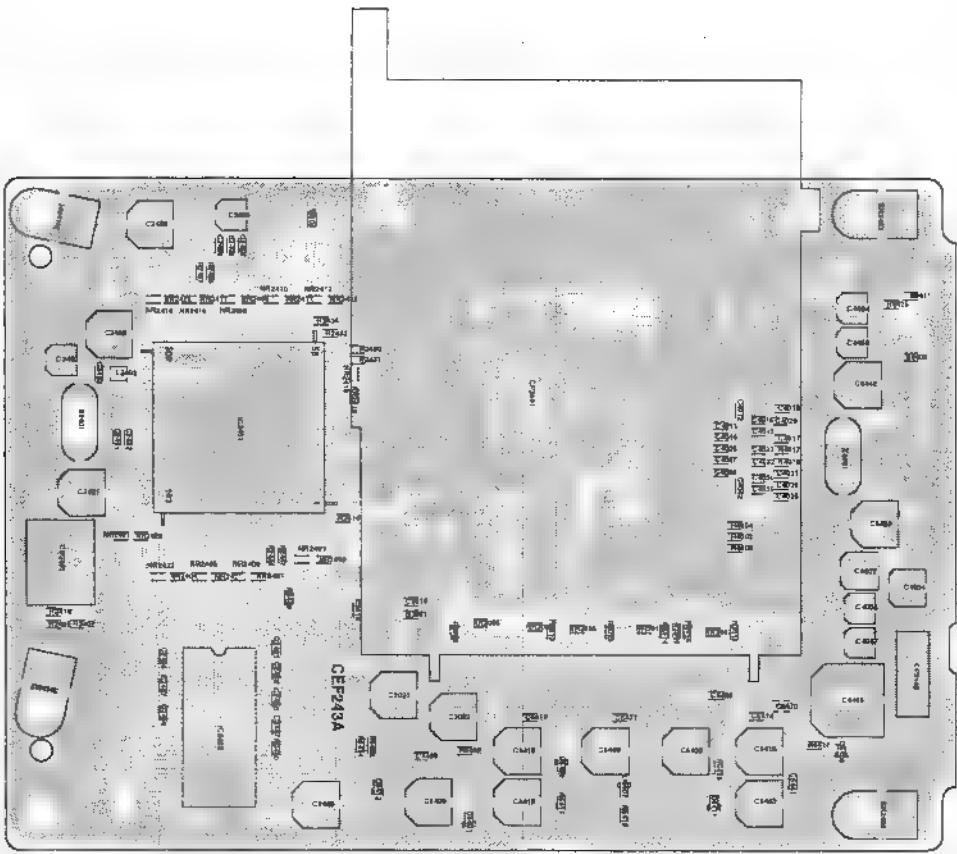


F-7

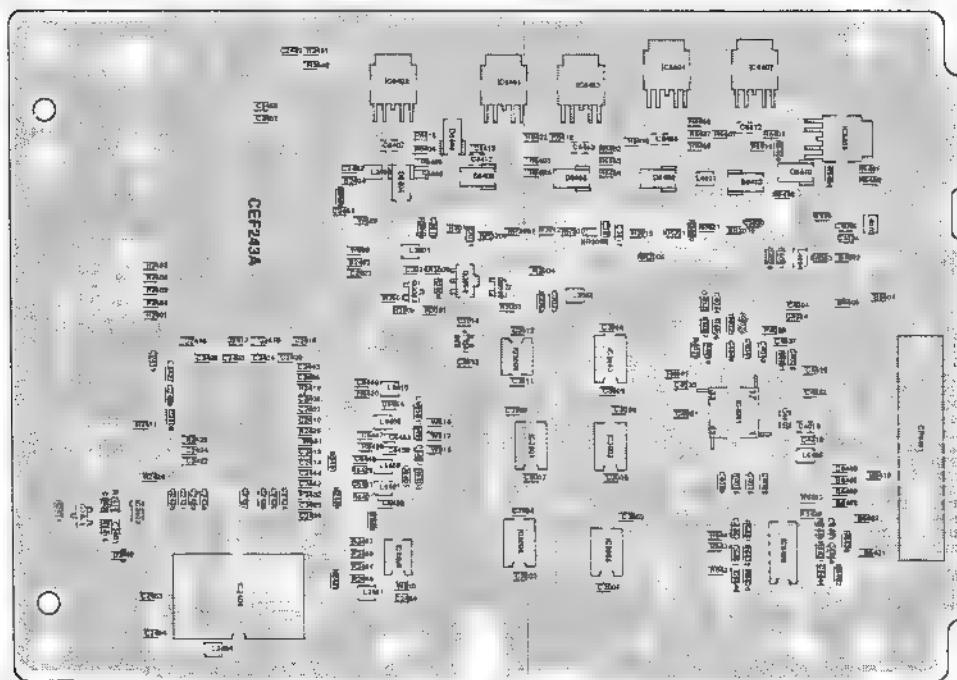
F-8

PRINTED CIRCUIT BOARDS

DIGITAL (TOP SIDE)

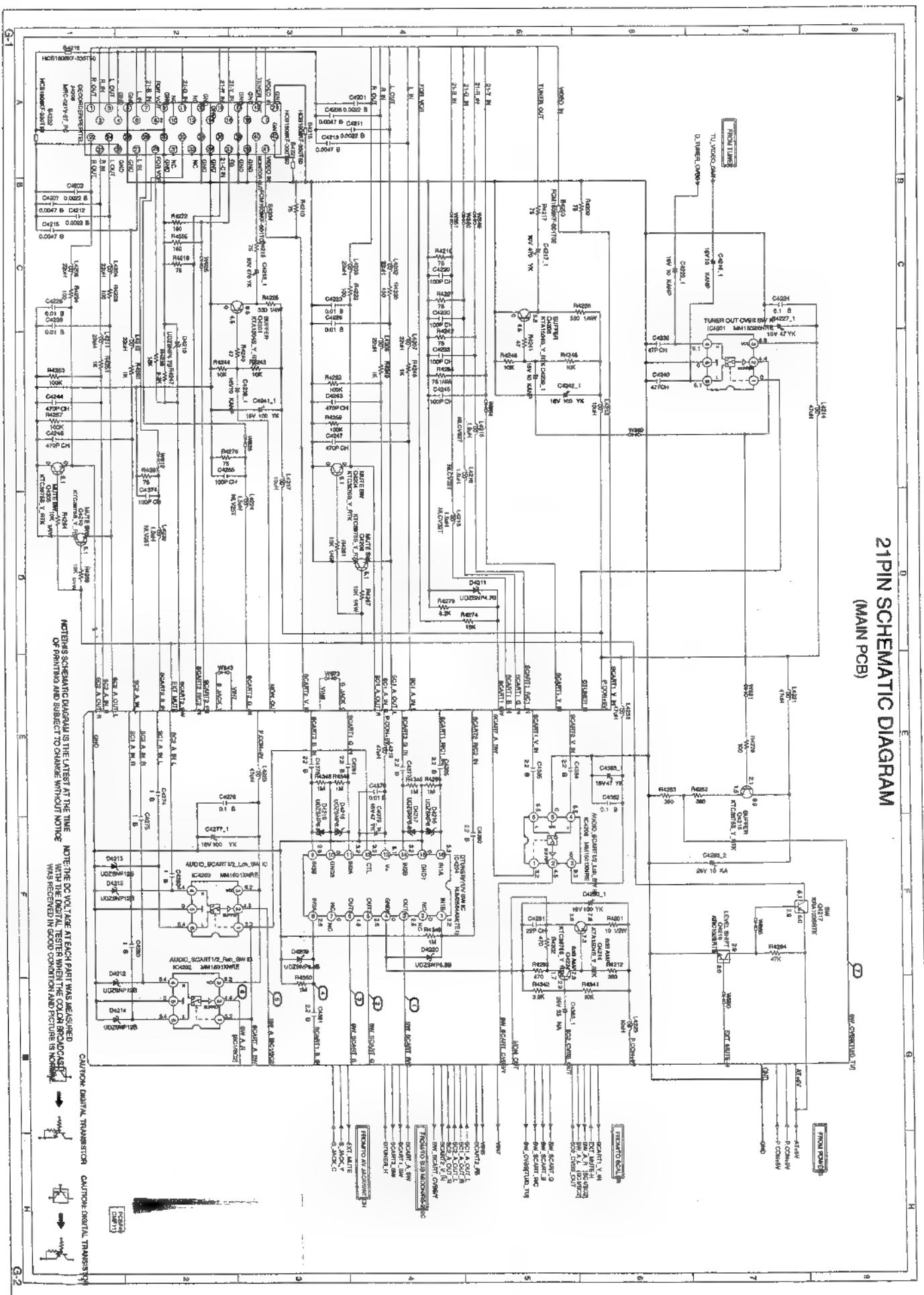


DIGITAL (BOTTOM SIDE)



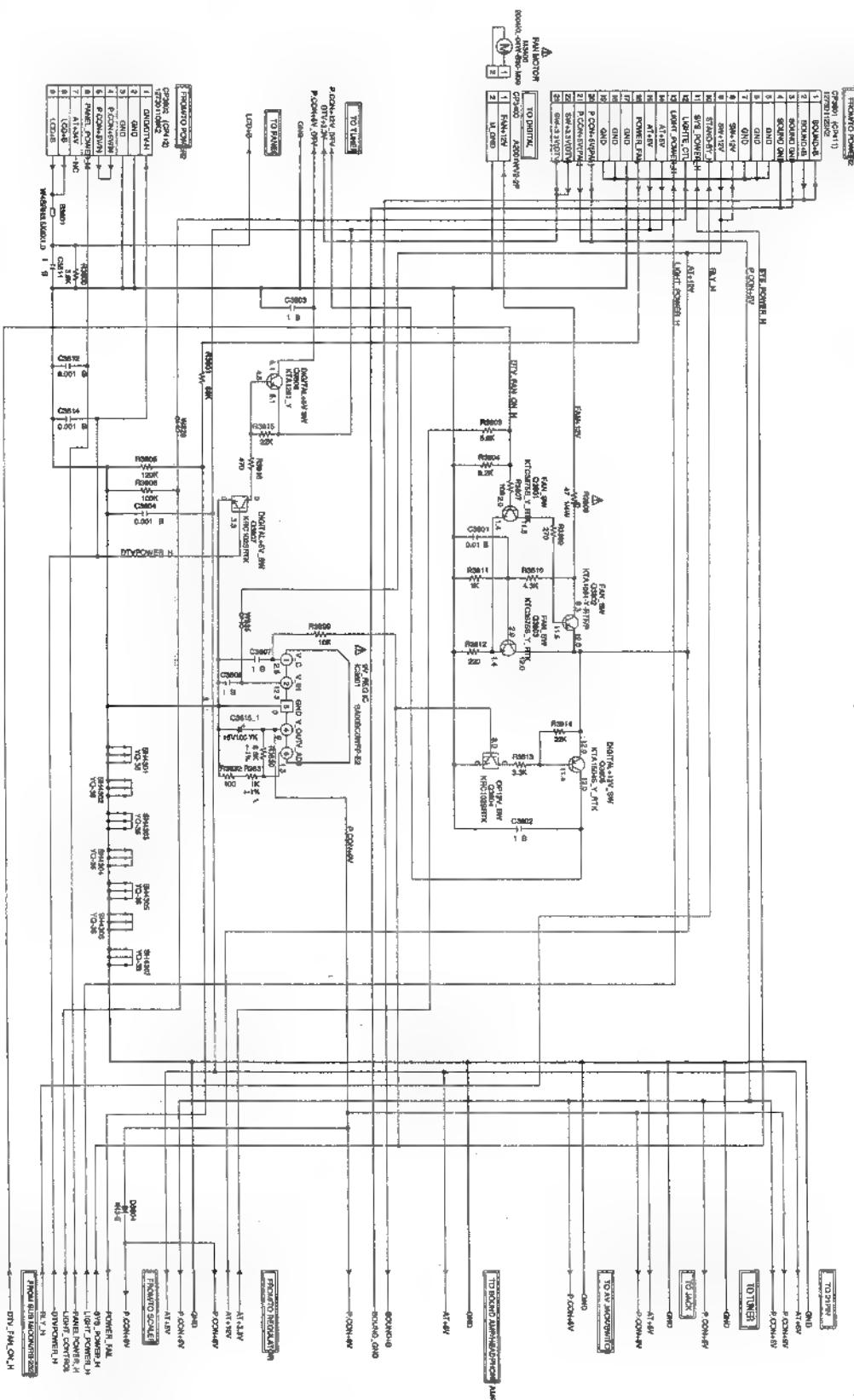
## 21PIN SCHEMATIC DIAGRAM

(MAIN PCB)



## POWER3 SCHEMATIC DIAGRAM (MAIN PCB)

(MANPUB)



NOTES: SUCHEMISCHEN DRAAGT IN DE AANTREK-  
Tijd. De AANTREK-Tijd is de Tijd die de  
VLAAMSE RADIOPUBLISCHINGEN  
UITZENDTEN. De AANTREK-Tijd is de Tijd  
die de VLAAMSE RADIOPUBLISCHINGEN  
UITZENDTEN.

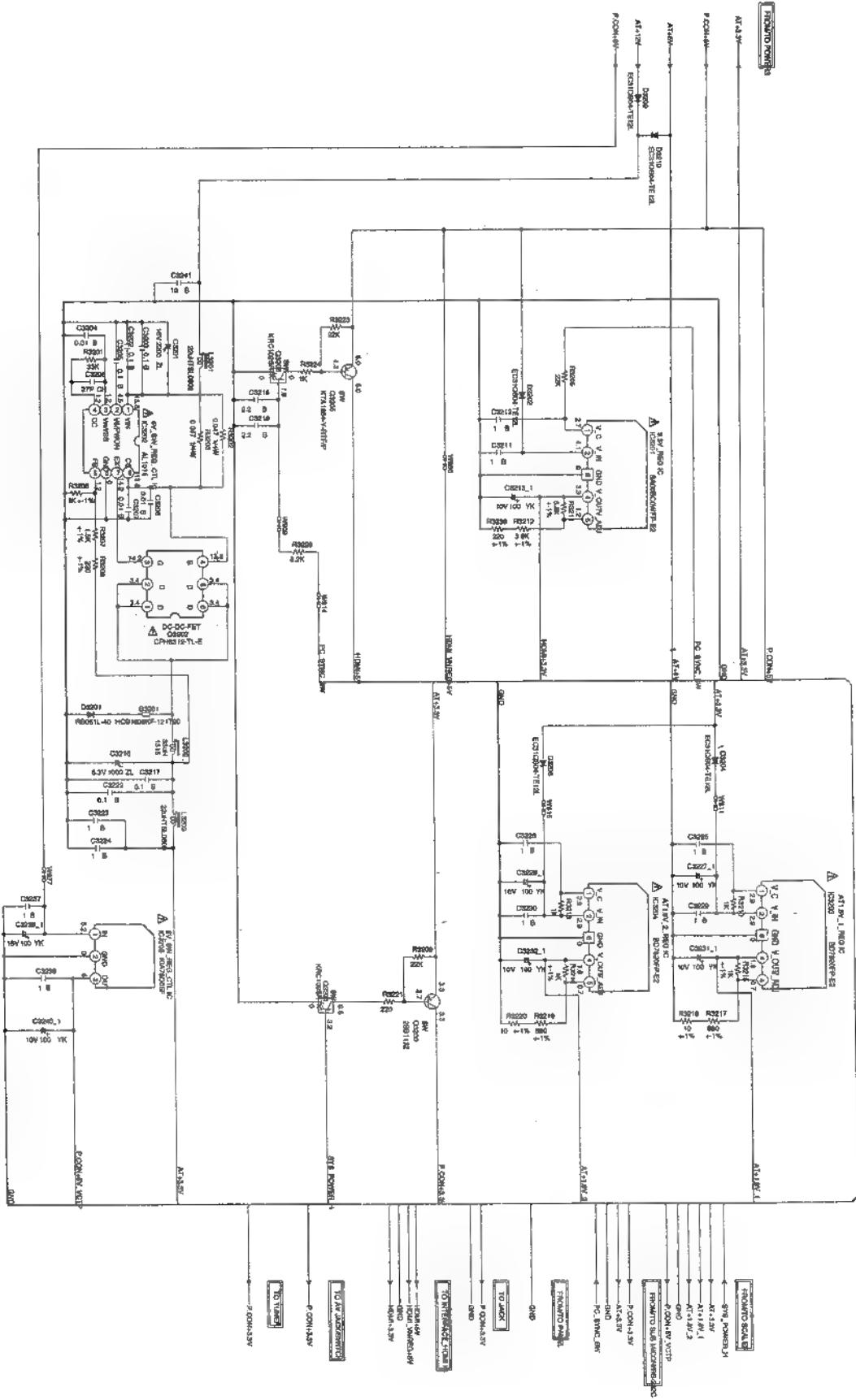
DO NOT USE THESE PARTS. MAKE SURE  
CATNICAL FOR SAFETY. USE ONES

**ATTENTION : PIÈCES RÉPARÉES POURINTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ**  
IL FAUT ENLEVER CELLES-DÉCOTES.

卷之三

## REGULATOR SCHEMATIC DIAGRAM (MAIN PCB)

(MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

**CAUTION** USE THESE PARTS MADE BY THE  
CHINESE FOR SAFETY, USE ONE'S  
DESCRIBED IN PARTS LIST ONLY.

**ATTENTION** À PIÈCES REPARÉES PAR MÉTANT  
DANGEREUSES AU POINT DE VUE SECURITÉ.  
N'UTILISEZ QUE CELLES DÉCRITES  
DANS LA PLATEAUURE DES OFFRES.

CAUTION: DIGITAL TRANSISTOR



# AV JACK/SWITCH SCHEMATIC DIAGRAM (MAIN PCB)

NOTES: SCHEMATIC DIAGRAMS ARE EXACT AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DODAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: PLEASE READ SAFETY INFORMATION DESCRIBED IN PARTS LIST ONLY.

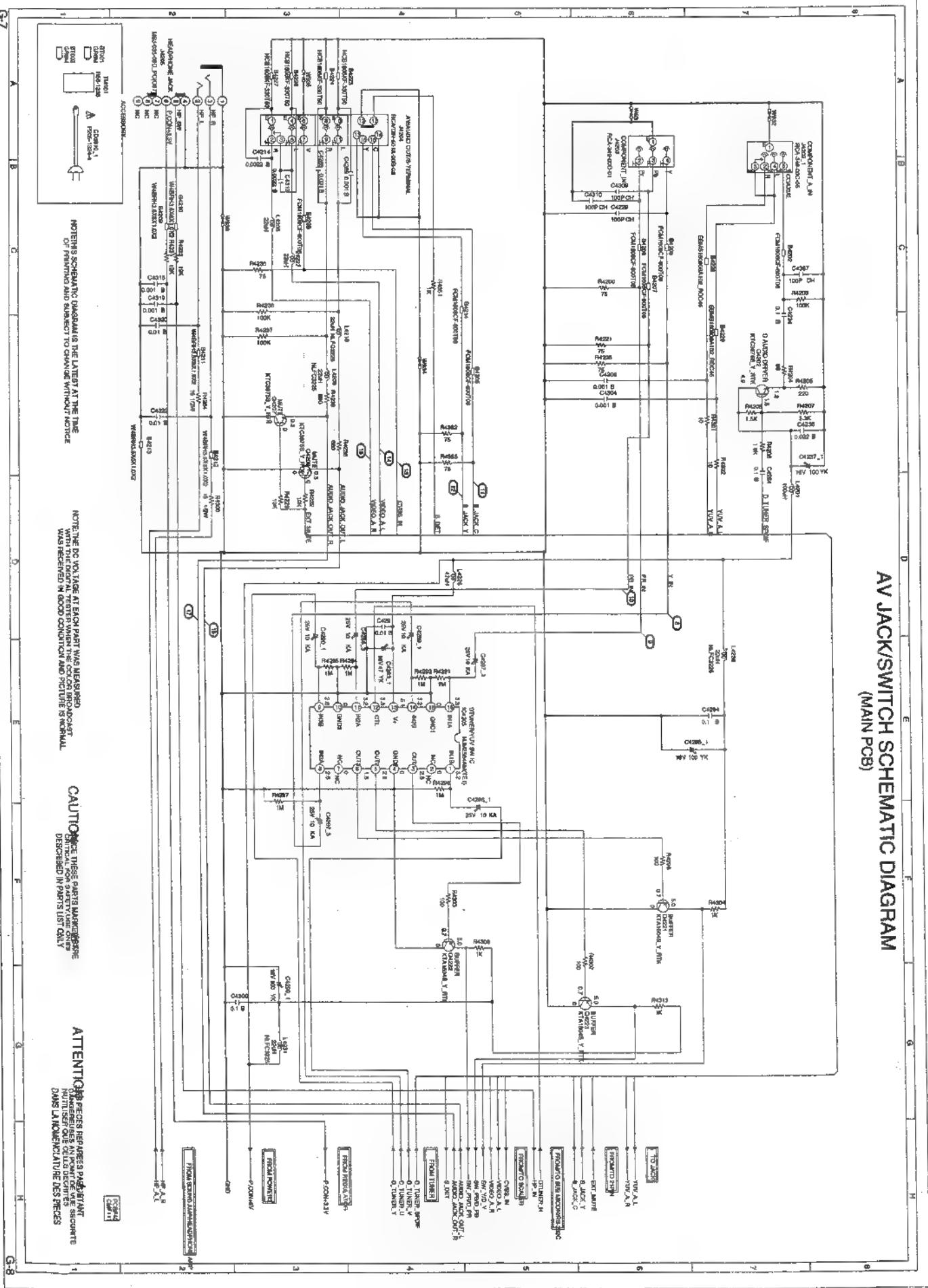
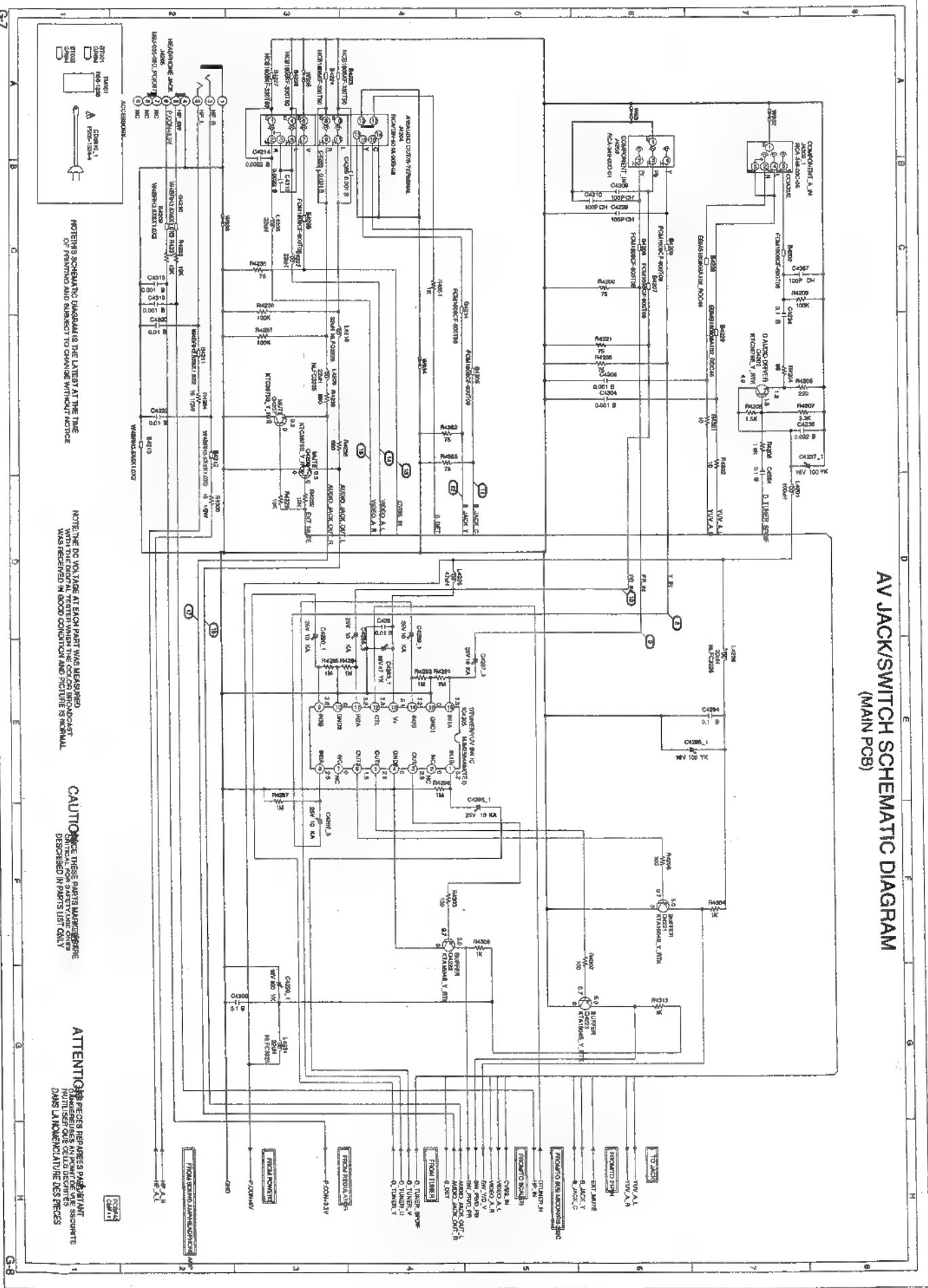
ATTENTION: TOUTES LES PIÈCES REPÉRÉES PENDANT L'ASSEMBLAGE DOIVENT ÊTRE SÉCURISÉES AU POINT DE VUE SÉCURITÉ. NE PAS UTILISER QUE CELLES QUI NE SONT PAS DANS LA NUMÉROUITE DES PIÈCES.

NOTES: SCHEMATIC DIAGRAMS ARE EXACT AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DODAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

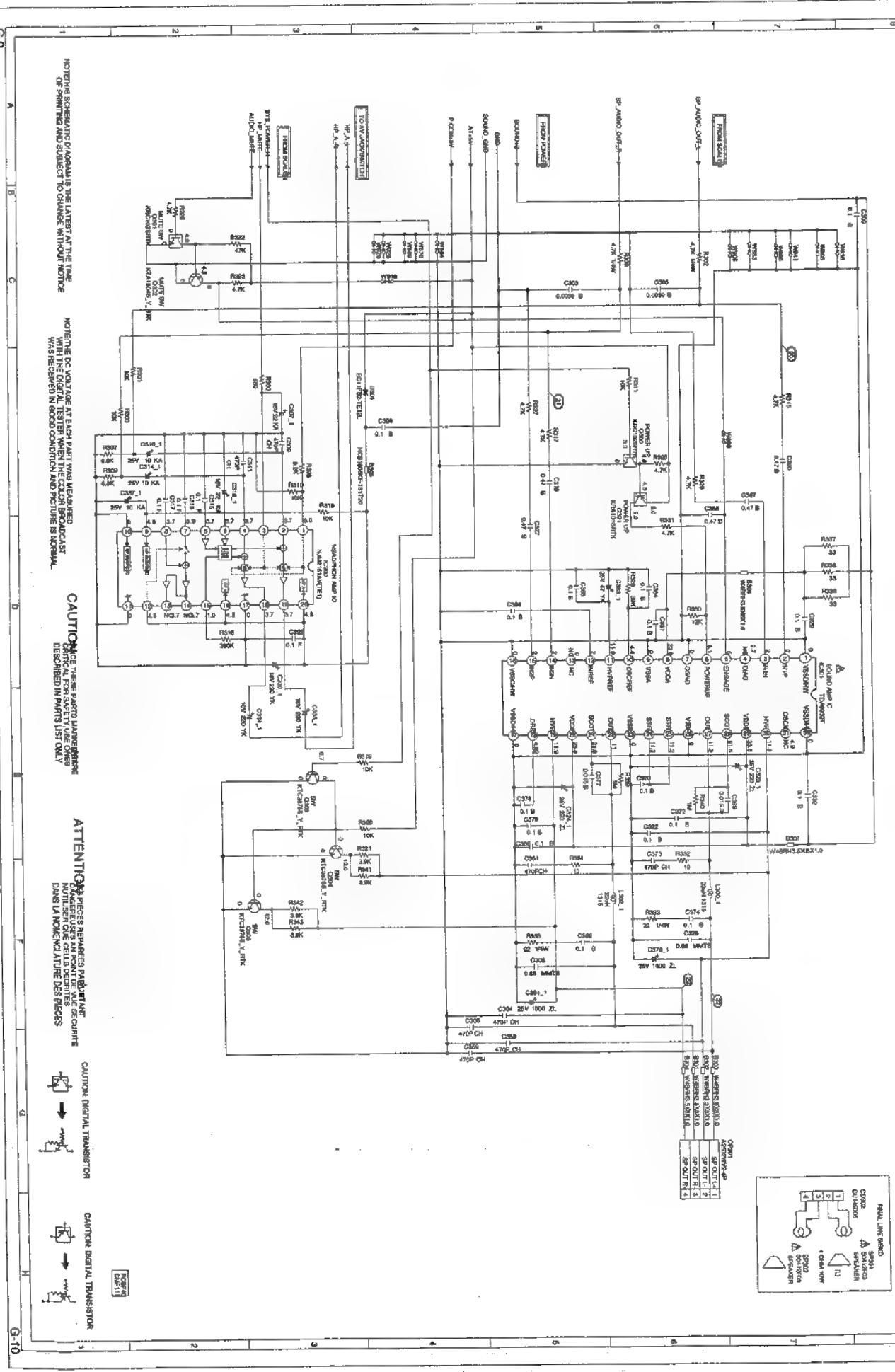
CAUTION: PLEASE READ SAFETY INFORMATION DESCRIBED IN PARTS LIST ONLY.

ATTENTION: TOUTES LES PIÈCES REPÉRÉES PENDANT L'ASSEMBLAGE DOIVENT ÊTRE SÉCURISÉES AU POINT DE VUE SÉCURITÉ. NE PAS UTILISER QUE CELLES QUI NE SONT PAS DANS LA NUMÉROUITE DES PIÈCES.



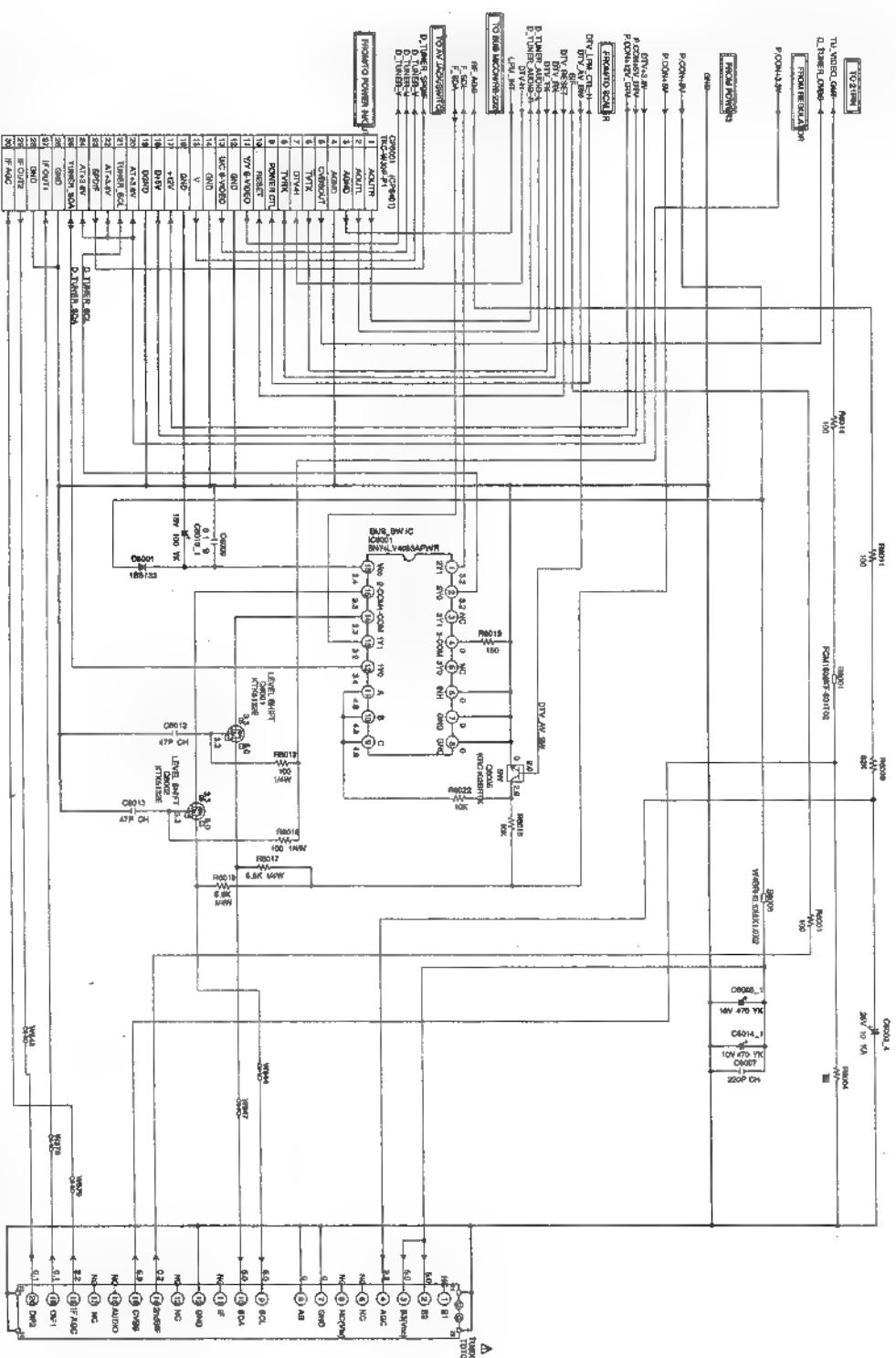
## SOUND AMP/HEADPHONE AMP SCHEMATIC DIAGRAM (MAIN PCB)

(MAIN PCB)



TUNER SCHEMATIC DIAGRAM

(MAIN PCB)



**NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.**

**NOTE: THIS SCHEMATIC DIAGRAM IS THE LA TEST AT THE TIME OF PUBLISHING AND SUBJECT TO CHANGE WITHOUT NOTICE.**

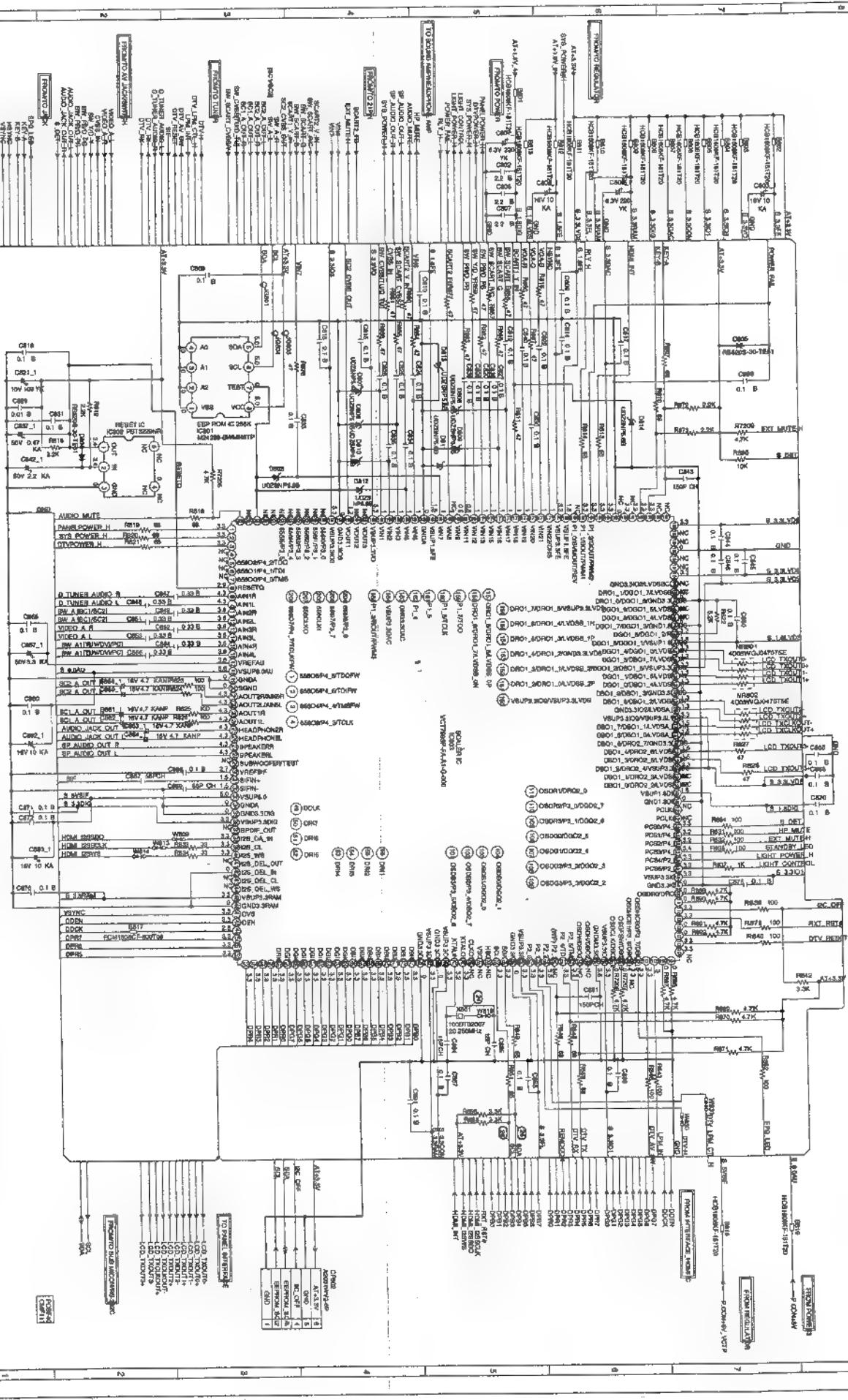
**ATTENTION !** LES PIÈCES RÉPARÉES POUR MONTANT DANGEREUSES ARRIVENT DE VUE SÉCURITÉ  
N'UTILISER QUE CELLES DÉCRÉTÉES

CAUTION DIGITAL THERMISTOR



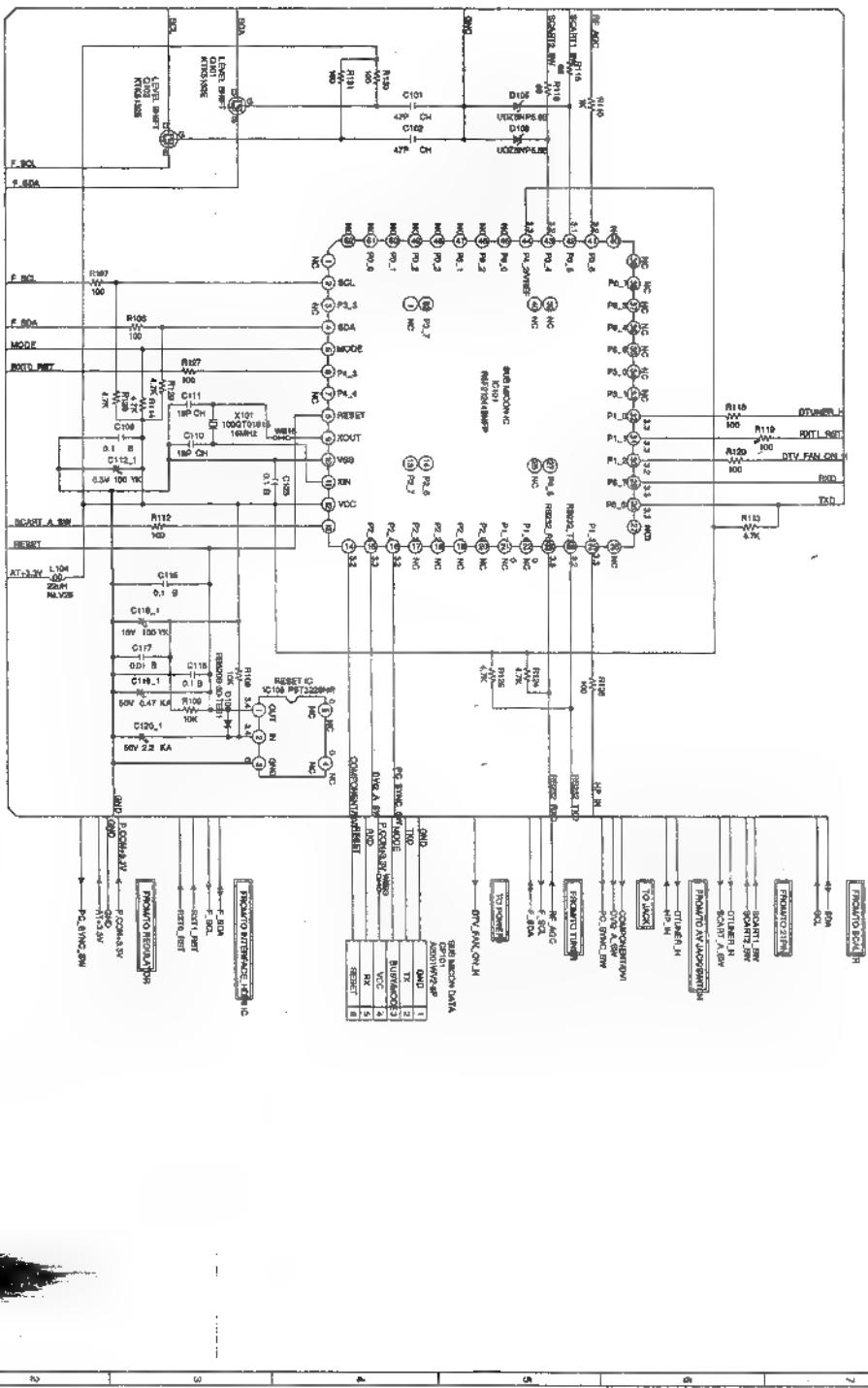
卷之三

# SCALER SCHEMATIC DIAGRAM (MAIN PCB)



## SUB MICON/RS-232C SCHEMATIC DIAGRAM (MAIN PCB)

(MAIN PCB)

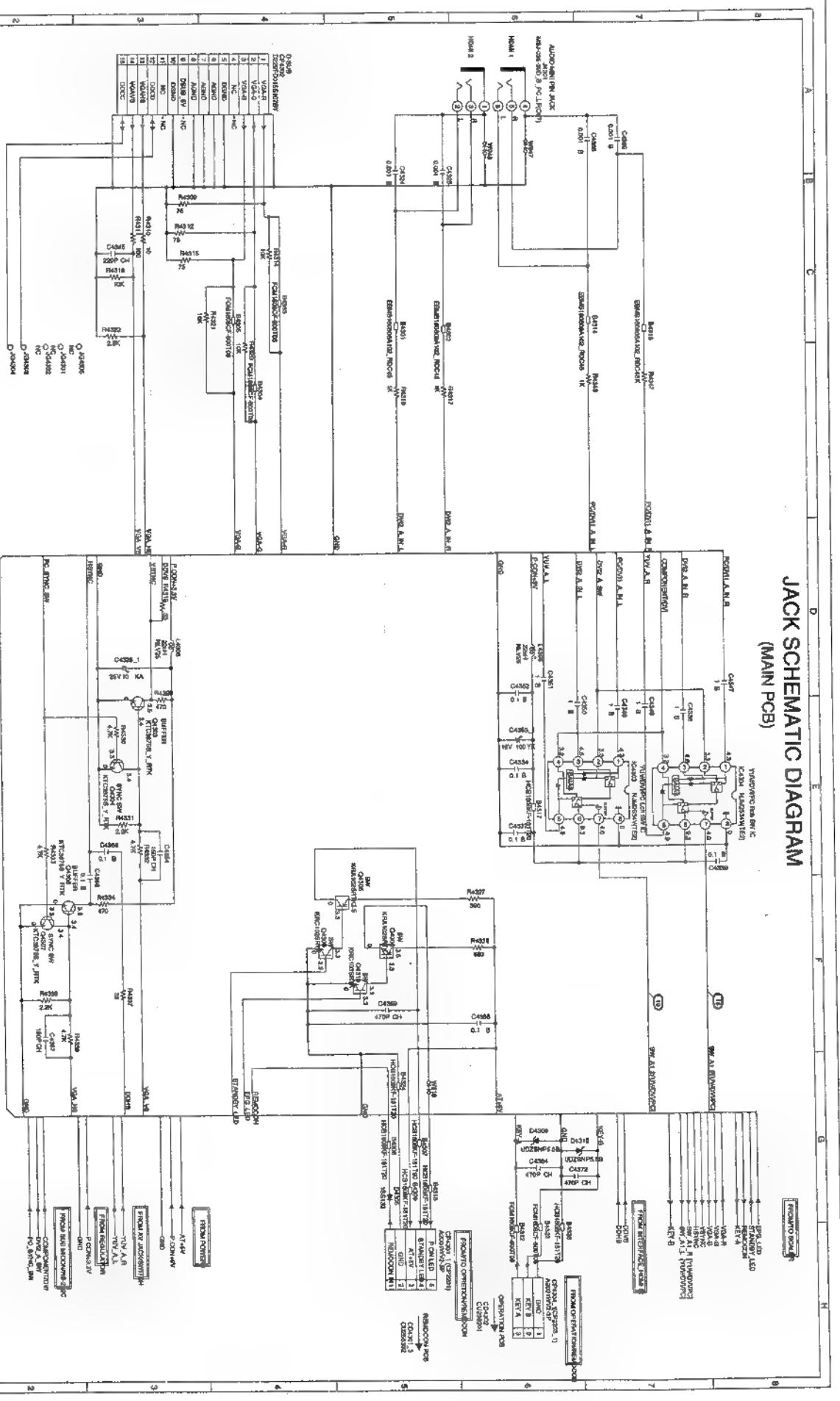


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

**NOTE: THE DC VOLTAGUE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.**

JACK SCHEMATIC DIAGRAM

(MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

**NOTE: THE DC VOLATAGE AT EACH PART WAS MEASURED WHILE THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.**

**CAUTION: DIGITAL TRANSISTOR**

卷之三

# PANEL INTERFACE DIAGRAM (MAIN PCB)

NOTES: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED DURING TEST WITH THE DIGITAL TESTER WHEN THE COLOR BRIDGE WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

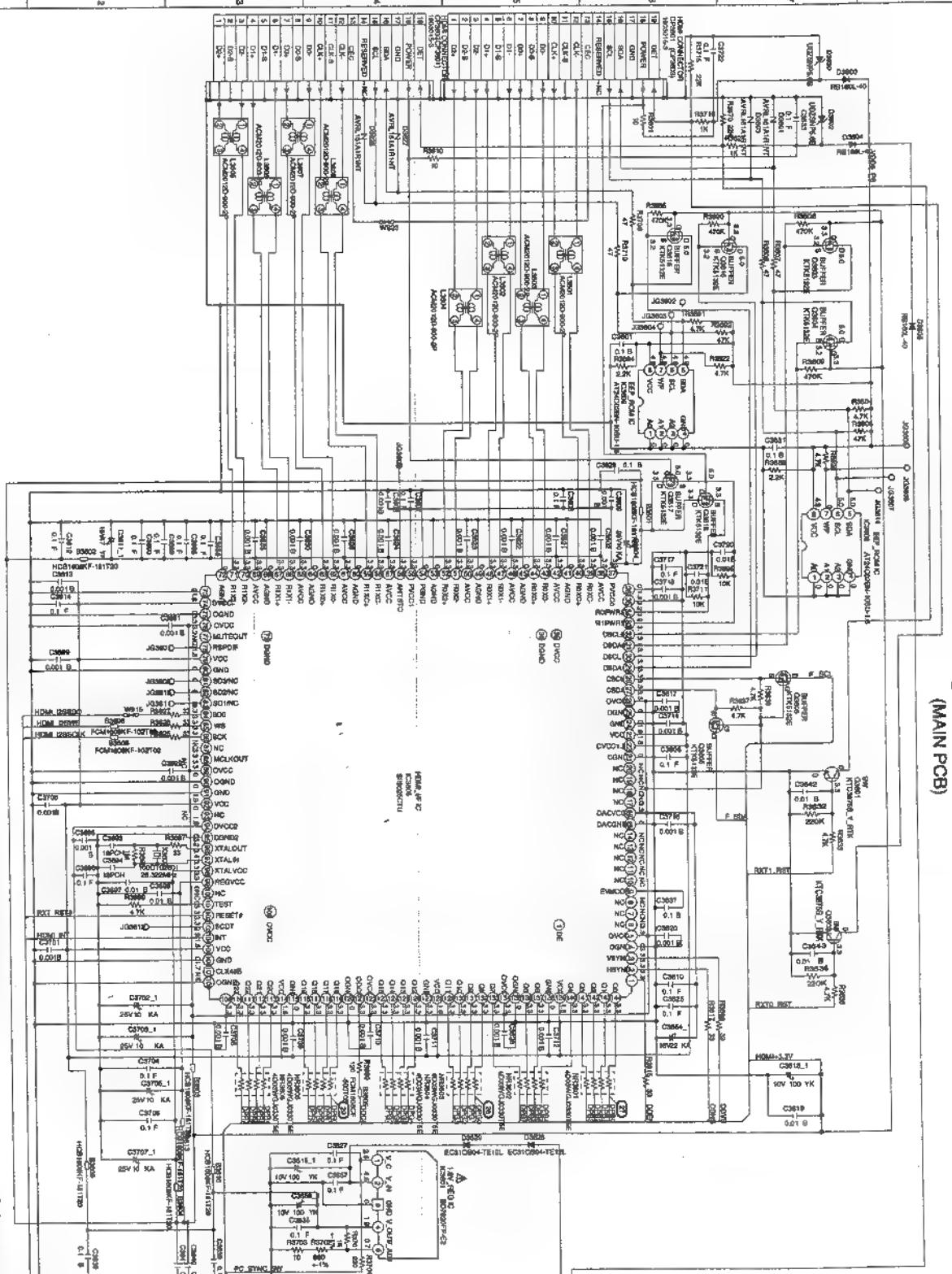
CAUTION: THESE PARTS ARE HIGHLY CRITICAL FOR SAFETY AND ONLY DESCRIBED IN PARTS LIST ONLY

ATTENTION: LES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ. NE PAS CHANGER DANS LA NOMENCLATURE DES PIÈCES

PICTURE

## INTERFACE\_HDMI IC SCHEMATIC DIAGRAM

(MAN FCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

**NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.**

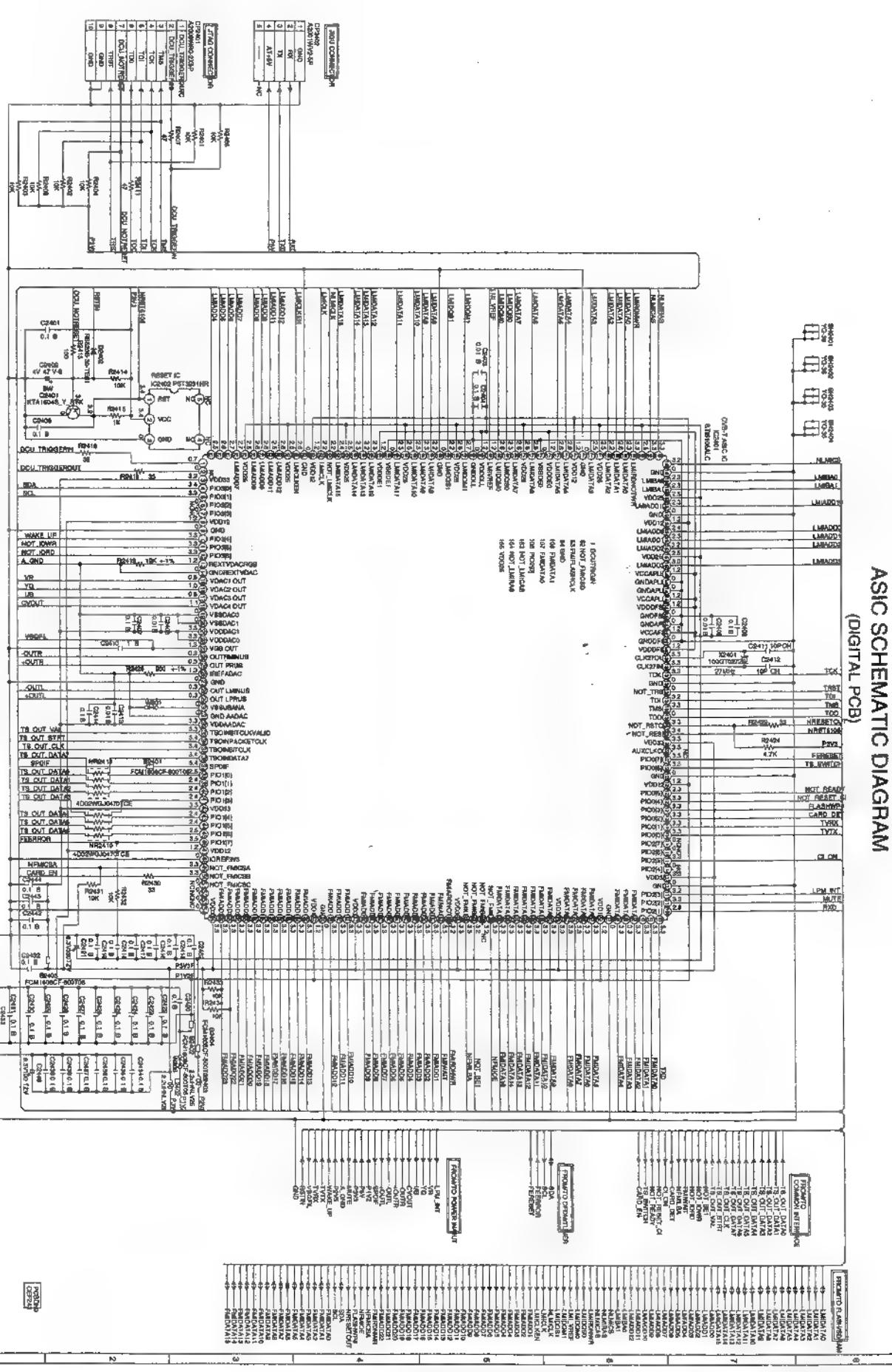
**CAUTION** THESE PARTS ARE CRITICAL FOR SAFETY, USE ONLY AUTHORIZED PARTS.

**ATTENTION** PIÈCES REPARÉES RÉAJUSTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ NEUTRALISER TOUTES CELLES DÉGRIFFÉES DANS LA MISE EN PLACE DES PIÈCES

DANGEREUSES AU POINT DE VUE SECURITÉ  
NUTRIR UNE CIEUX DÉGARNIES  
DANS LA NOMENCLATURE DES PIÈCES

ASIC SCHEMATIC DIAGRAM

(DIGITAL PCB)

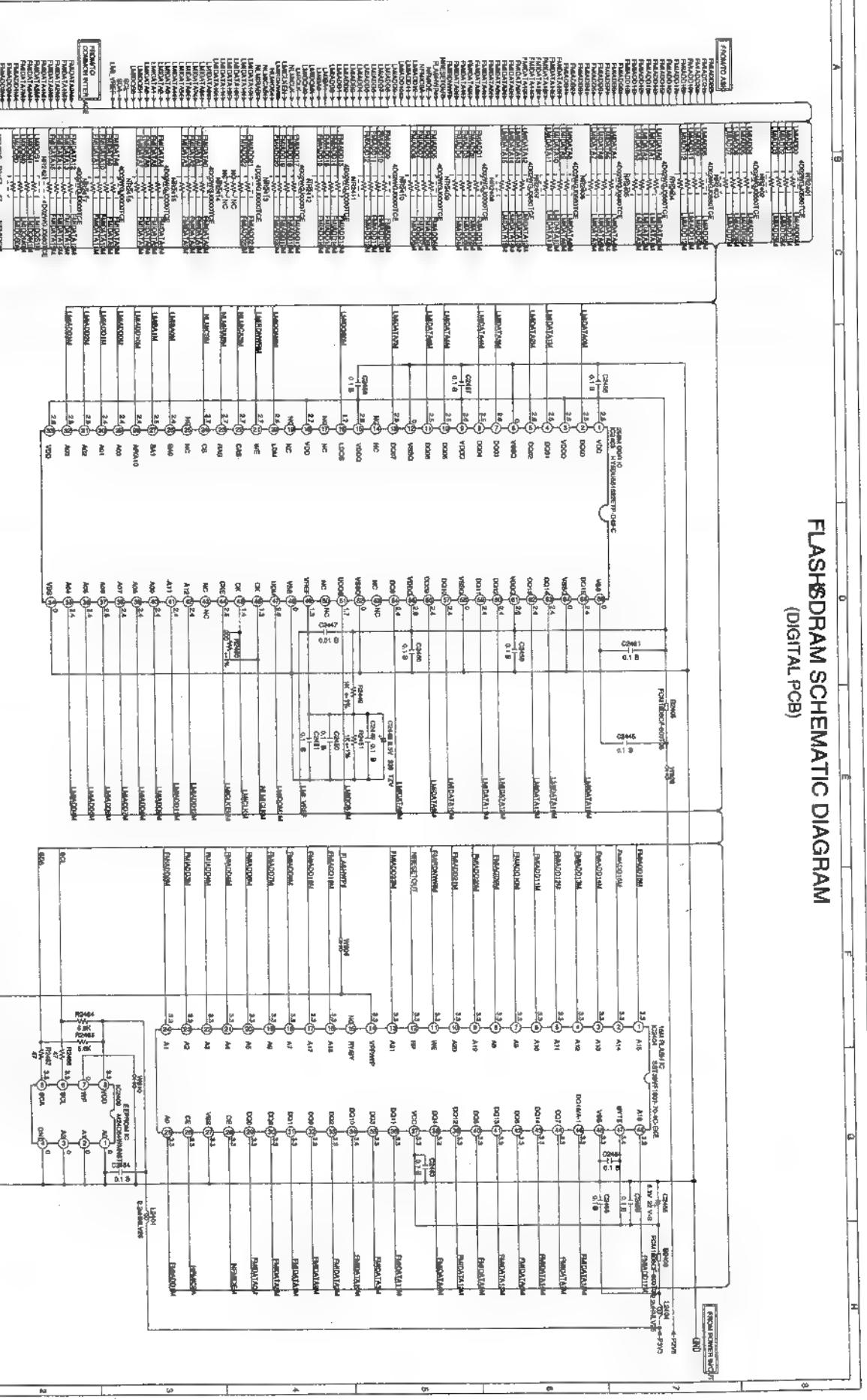


**NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.**

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

## FLASH&DRAM SCHEMATIC DIAGRAM (DIGITAL PCB)

(DIGITAL PCB)

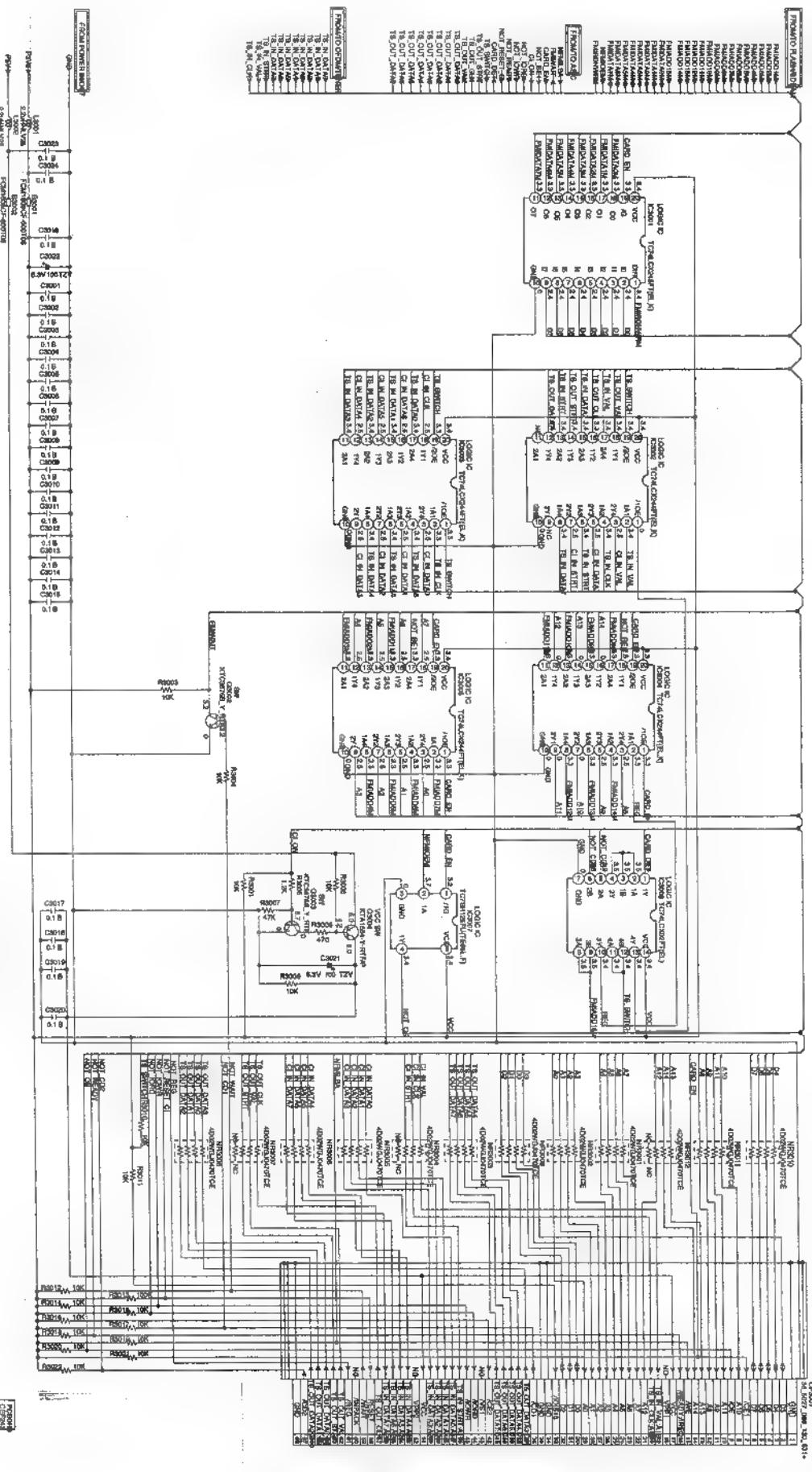


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PUBLISHING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

## COMMON INTERFACE SCHEMATIC DIAGRAM (DIGITAL PCB)

(DIGITAL PUB)



NOTWITHSTANDING THE FOREGOING, THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

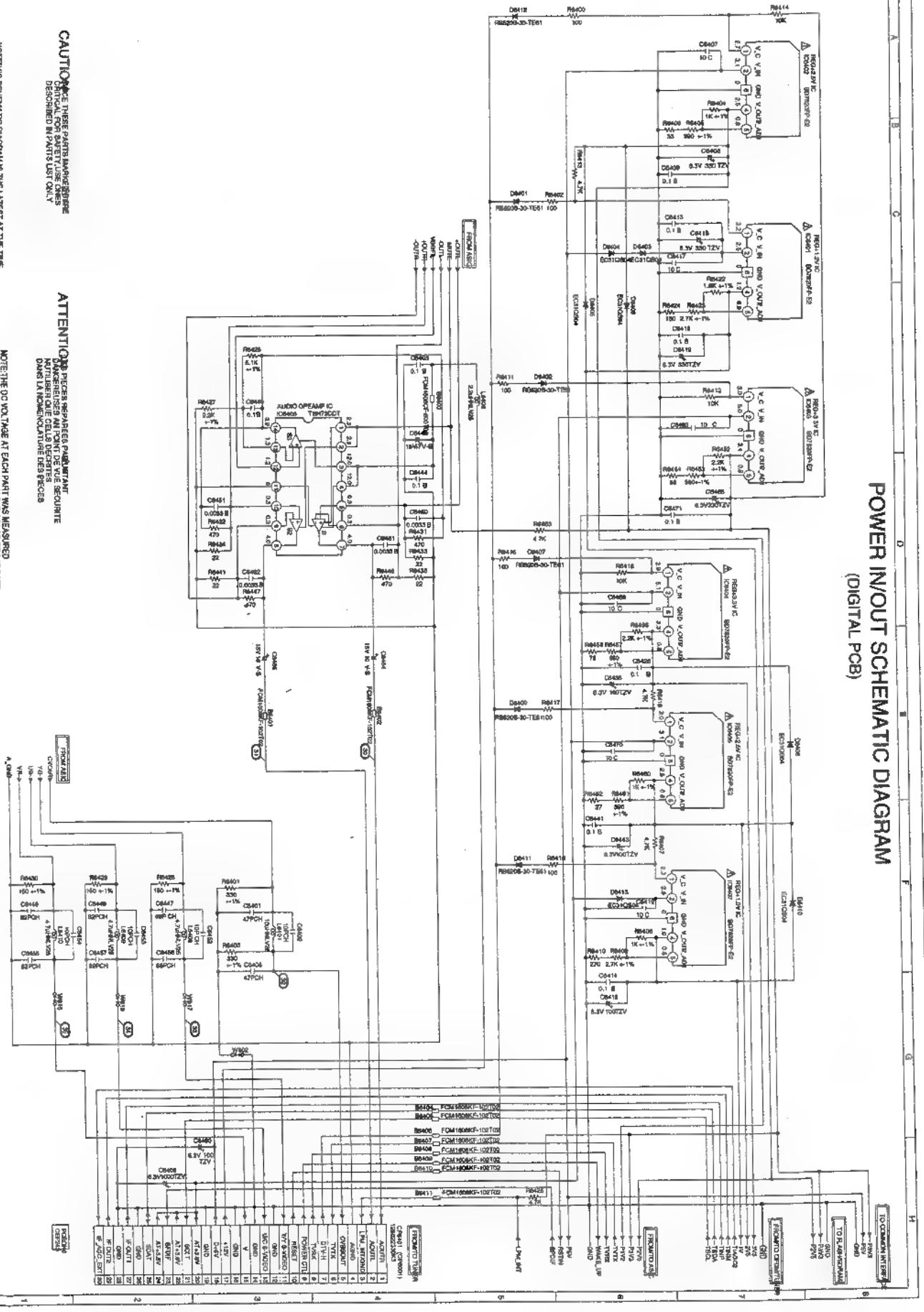
**NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.**

## POWER IN/OUT SCHEMATIC DIAGRAM (DIGITAL PCB)

**CAUTION:** THESE PARTS ARE FOR SAFETY USE ONLY.  
DO NOT USE UNLESS DESCRIBED IN PARTS LIST ONLY.

**NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.**

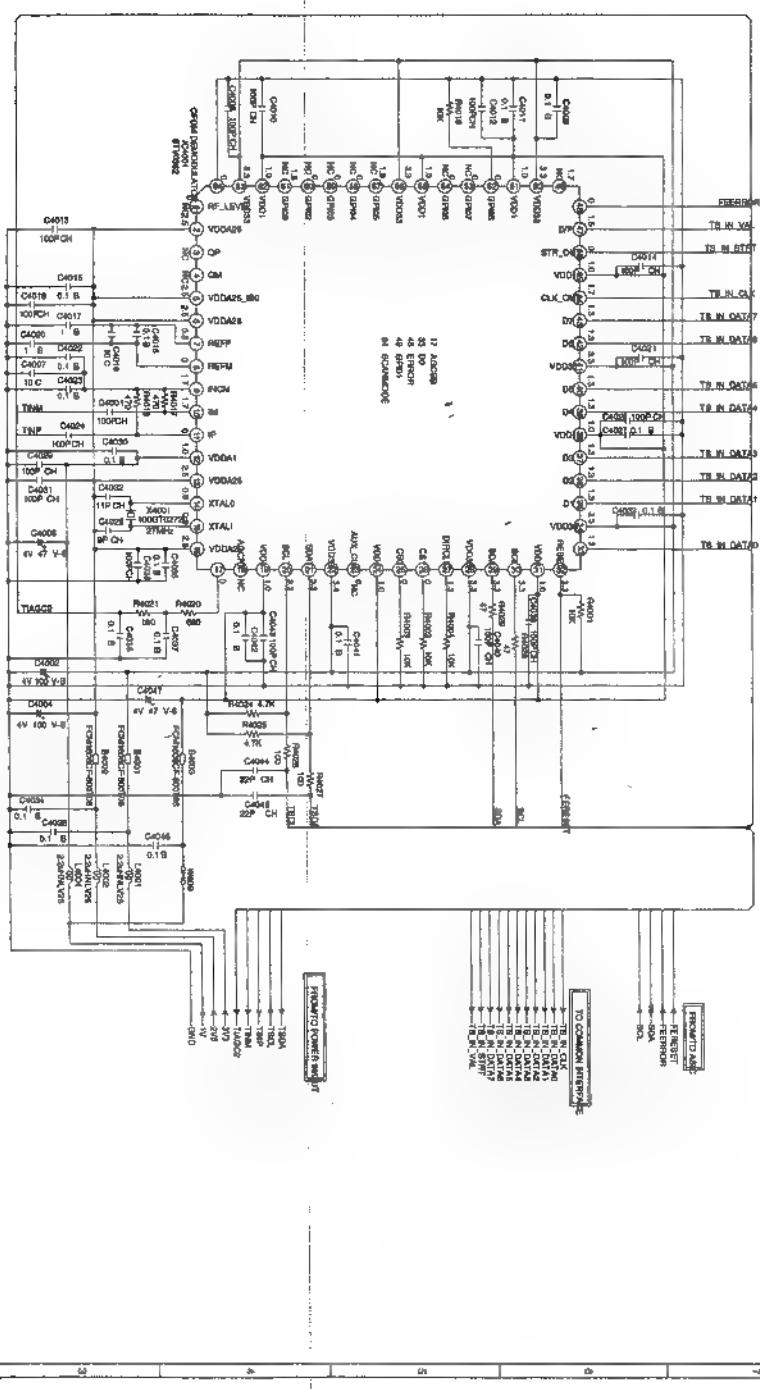
**ATTENTION**  
DANGEROSSE AU POINT DE VUE SECURITE  
N'UTILISER QUE CELLS DECOTES  
DANS LA NOMENCLATURE DES SPECES



## OFDM TUNER SCHEMATIC DIAGRAM (DIGITAL PCB)

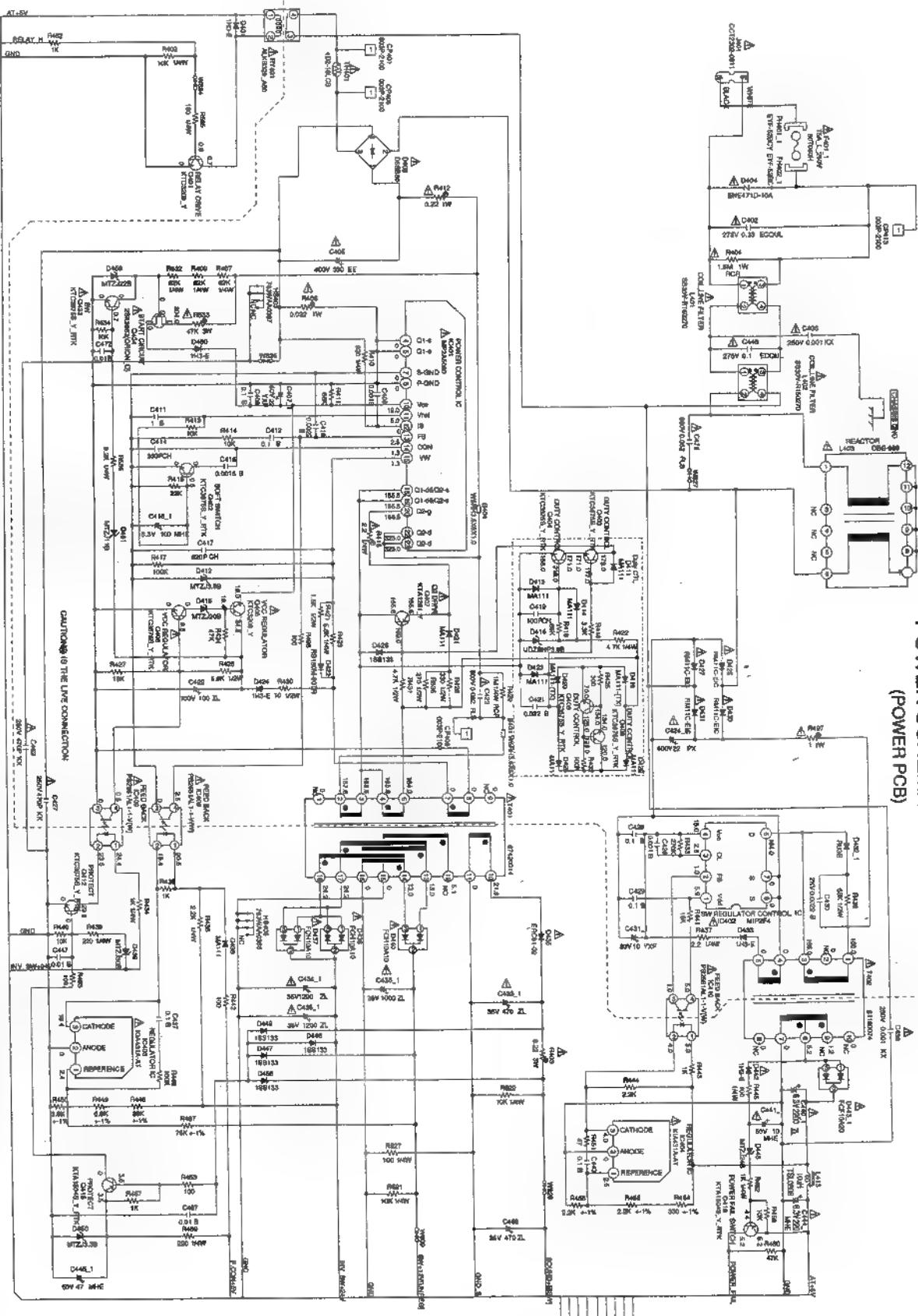
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.



## POWER SCHEMATIC DIAGRAM

(POWER PCB)



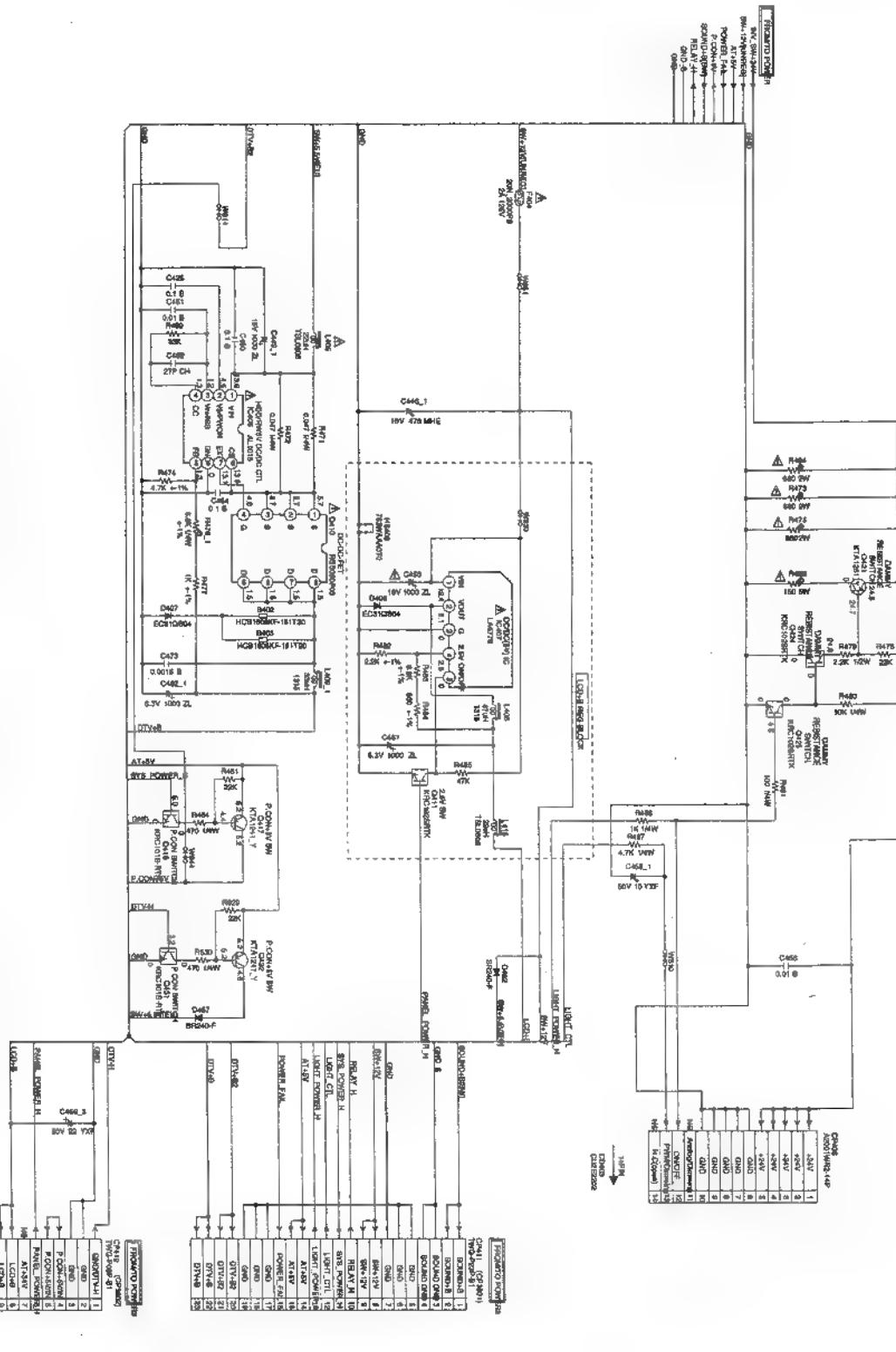
NOTE THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PUBLISHING AND SUBJECT TO CHANGE WITHOUT NOTICE

NOTE THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

**CAUTION** USE THESE PARTS MARKED WITH A BUREAU OF  
CENSUS STICKER. THESE PARTS ARE  
CRITICAL FOR SAFETY. USE ONES  
DESCRIBED IN PARTS LIST ONLY.

**ATTENTION** À DES PIÈCES PRÉPARÉES POUR YANT  
DANGEREUSES EN POINT DE VUE SÉCURITÉ  
N'UTILISER QUE CELS DÉSIGNÉS  
DANS LA NOTICE D'ENTRETIEN DES PIÈCES

# POWER2 SCHEMATIC DIAGRAM (POWER PCB)



NOTIFYING SCHEMATIC DRAWINGS OF THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PORT WAS MEASURED  
WITH THE DIGITAL TESSTER WHILE THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: THESE PARTS ARE DANGEROUS  
PARTICULARLY FOR SAFETY USE CARE  
DESCRIBED IN PARTS LIST ONLY.

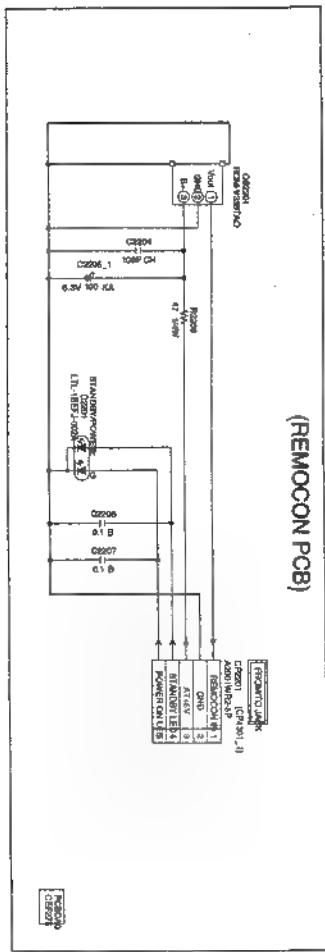
ATTENTION: CEZCIERIE PERMISE A PARTE JEUNE  
TOUTE REUSE DES ANCIENNES VUE SECURITE  
MULTIUSER ONE CELLS DECHETS  
DANS LA NOMENCLATURE DES PIECES

CAUTION: DIGITAL TRANSISTOR

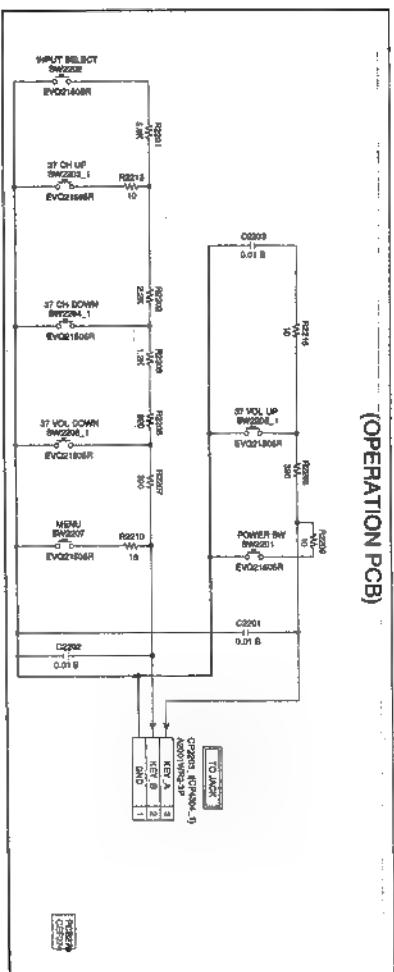
POLARITY

# OPERATION/REMOCON SCHEMATIC DIAGRAM

(REMOCON PCB)



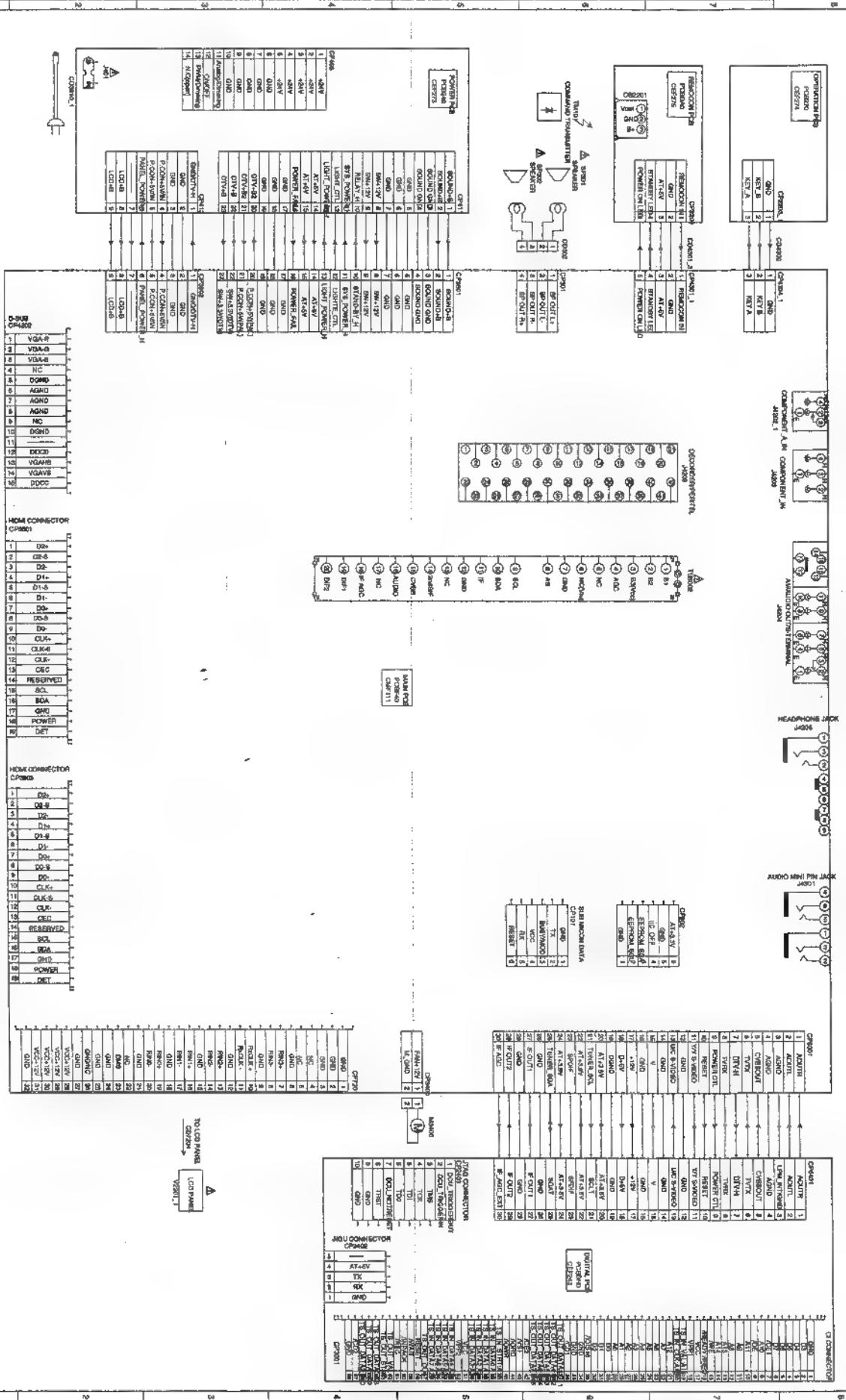
(OPERATION PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

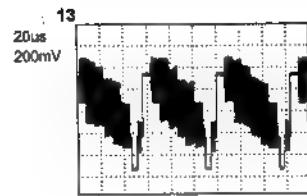
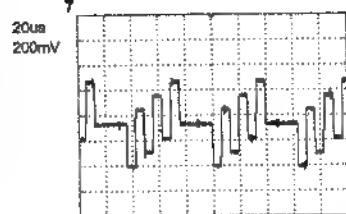
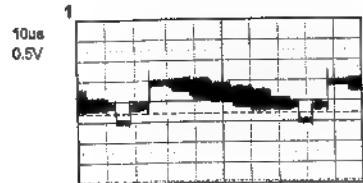
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED SOONER WITH THE DIGITAL TESTER WHEN THE COLOR IMAGE WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

# INTERCONNECTION DIAGRAM

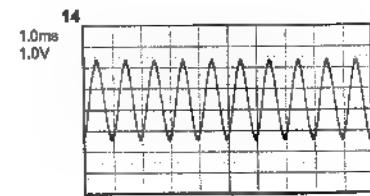
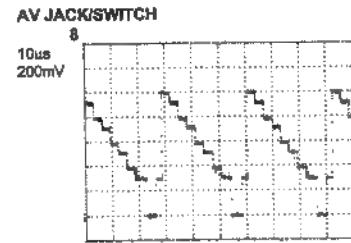
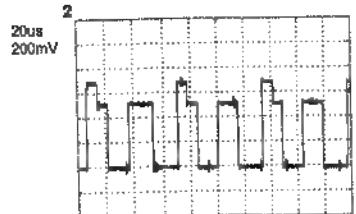


# WAVEFORMS

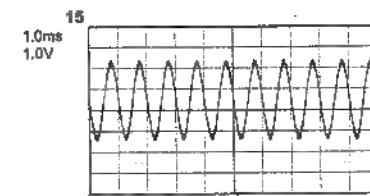
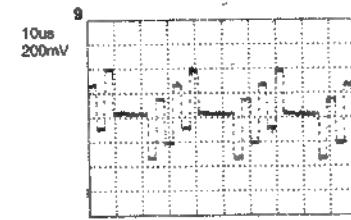
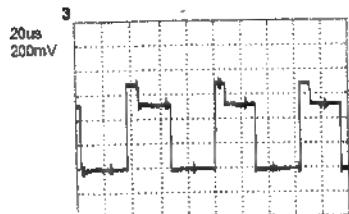
**21PIN**



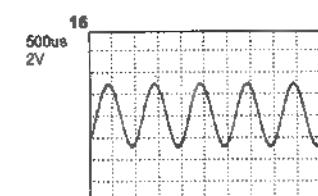
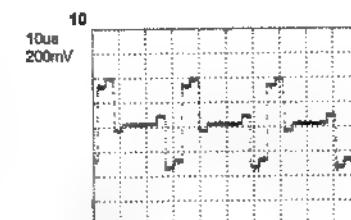
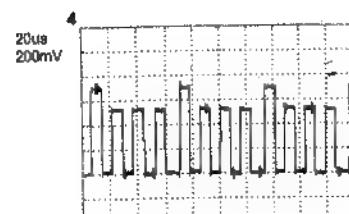
**AV JACK/SWITCH**



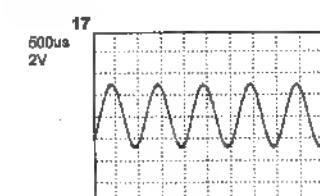
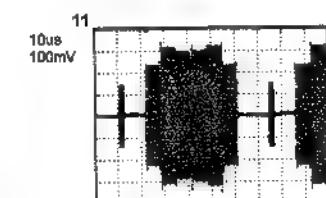
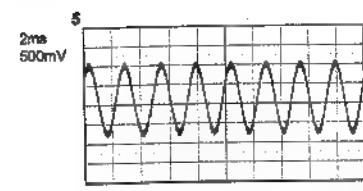
**3**



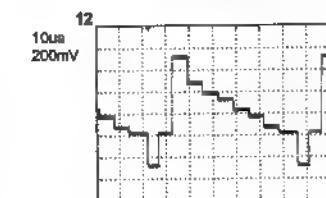
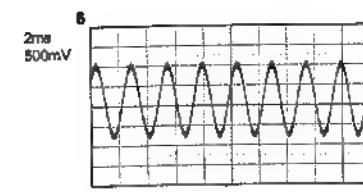
**4**



**5**

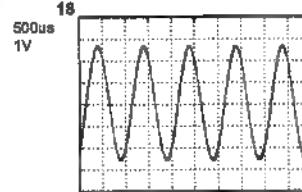


**6**



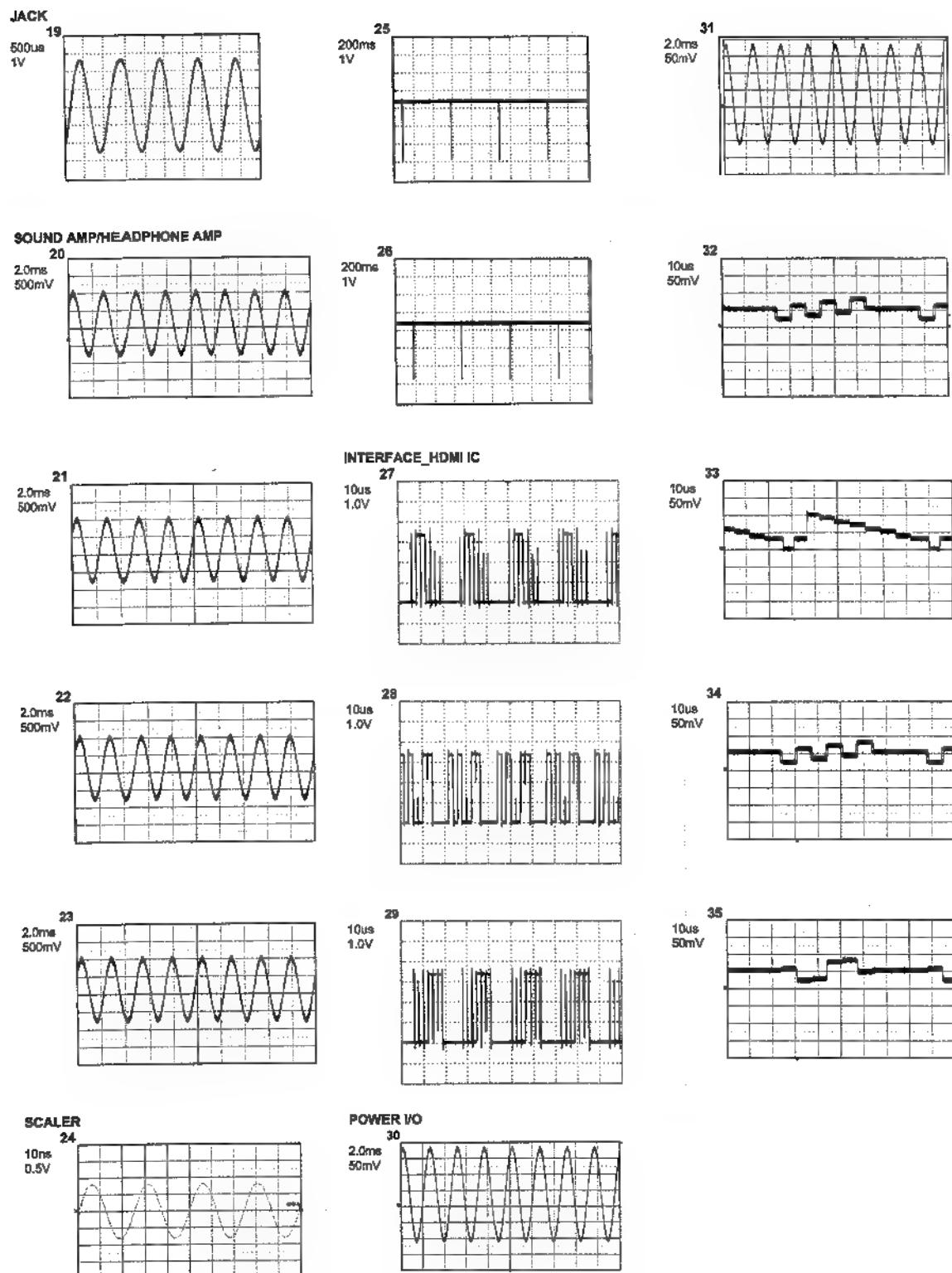
**JACK**

**18**



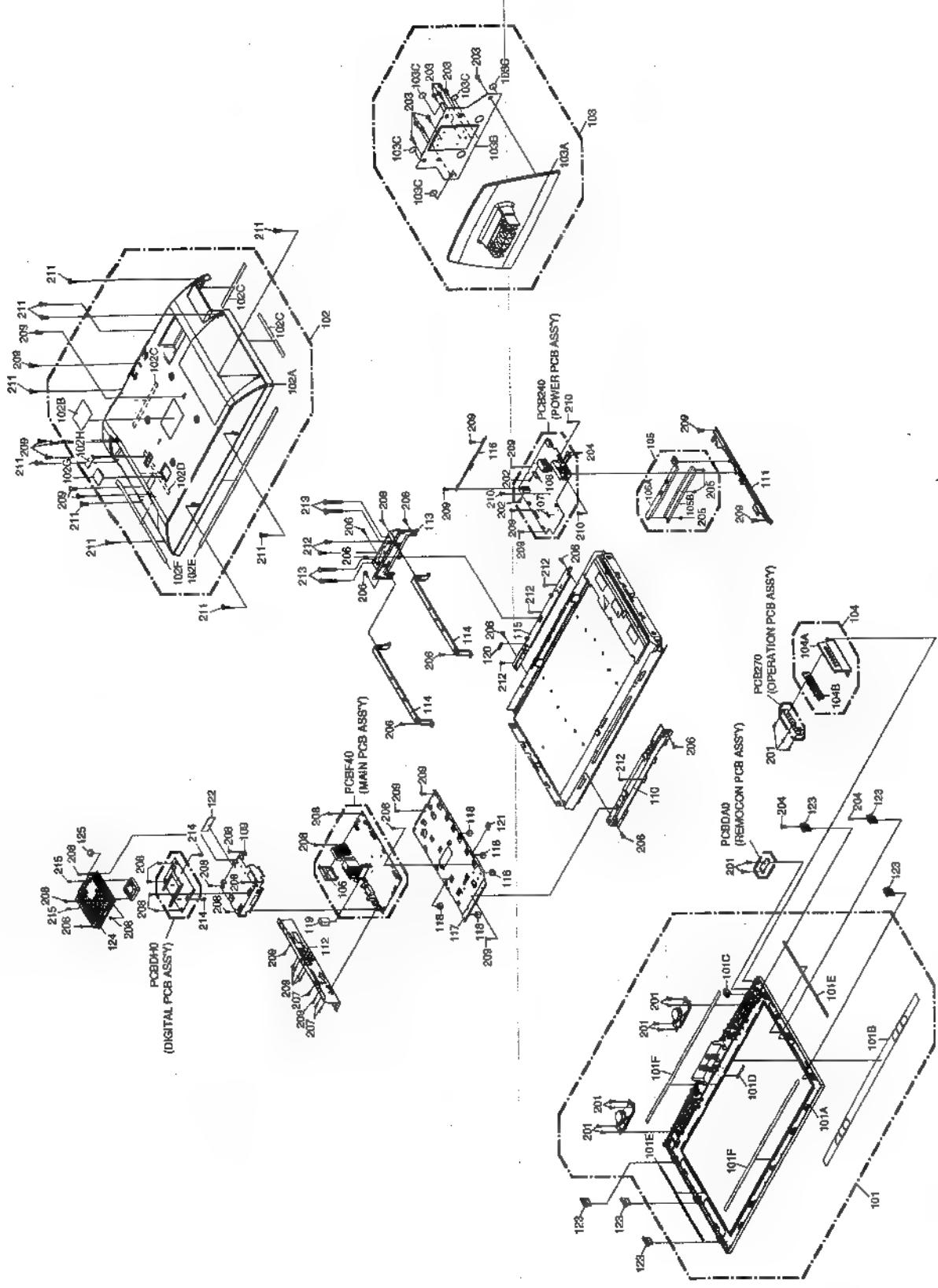
**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

# WAVEFORMS



**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

MECHANICAL EXPLODED VIEW



## MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
101	7A701B003A	FRONT CABI ASSY	201	8110630A0U	SCREW TAP TITE(P)
101A	701WPDA034	CABINET FRONT	202	810763080U	SCREW TAP TITE(S)
101B	702WNBA010	SHEET SPEAKER	203	811063080U	SCREW TAP TITE(P)
101C	713WPA0407	GLASS LED	204	8109130A0U	SCREW TAP TITE(B)
101D	7232020789	BADGE BRAND	205	8110K3080U	SCREW TAP TITE(P)
101E	800WQ0A092	FELT SHEET	206	810A14080U	SCREW WASHER(A)
101F	800WQ00102	FELT SHEET	207	810213080U	SCREW PAN
			208	810923060U	SCREW TAP TITE(B)
102	7A7020249A	BACK CABI ASSY	209	810923080U	SCREW TAP TITE(B)
102A	702WPAB081	CABINET BACK	210	81171130A0U	SCREW TAP TITE(B)
102B	722202B030	SCHEET RATING	211	811023080U	SCREW TAP TITE(P)
102C	800WQ0A049	FELT SHEET	212	8117540A0U	SCREW TAPPING(B0)
102D	800WQ0A106	FELT SHEET	213	8167160E5U	SCREW WASHER(B)
102E	800WQ0A140	FELT SHEET	214	8102220A0U	SCREW,BIND
102F	800WQ00106	FELT,SHEET	215	811022680U	SCREW TAP TITE(P)
102G	706WPA0025	COVER CONNECTOR		7230000D882	SCHEET CARTON
102H	706WPA007	COVER CONNECTOR		791WHA046	LAMIFILM BAG
				792UHAA077	PACKAGE TOP
103	7A704A080A	STAND ASSY		792UHAA078	PACKAGE BOTTOM
103A	704WPBA050	STAND		793PCDA027	GIFT BOX
103B	761WSA0581	ANGLE STAND		J32M0301A	INSTRUCTION BOOK(G)
103C	800WFA0121	CUSHION LEG		J32M0307A	QUICK SET-UP SHEET
104	7A735A005A	PLATE BUTTON ASSY		J32M0310A	INSTRUCTION BOOK(F)
104A	711WPDA744	PLATE BUTTON		J32M0311A	INSTRUCTION BOOK(H)
104B	735WPA0947	BUTTON FRAME-TV		J32M0314A	INSTRUCTION BOOK(CZ)
105	7A7050006A	HOLDER PCB ASSY		J32M0325A	INSTRUCTION BOOK(S)
105A	761WPA0475	HOLDER PCB		J32M0346A	INSTRUCTION BOOK(E)
105B	761WSA0556	ANGLE PCB-4		J32M0352A	INSTRUCTION BOOK(I)
106	761WSA0432	SHIELD 21PIN		JB5PD800	POLYBAG,INSTRUCTION
107	724000A014	SHEET FUSE			
108	761WSA0459	SHIELD IC			
109	752WSA0653	SHIELD SCALER			
110	761WSAA086	ANGLE LCD TOP			
111	761WSAA088	ANGLE PCB-1			
112	761WSAA089	PLATE JACK			
113	761WSA0466	ANGLE HINGE			
114	761WSA0472	ANGLE MAIN			
115	761WSA0498	ANGLE LCD BOTTOM			
116	761WSA0538	ANGLE PCB-3			
117	761WSA0603	ANGLE PCB-2			
118	8965TS1210	CUSHION			
119	8965TS1010	CUSHION			
					W10/H12/L10 85TS10-10(10x10x25)
120	899RFC21V0	HOLDER CORD			
121	899RLWC25V	HOLDER WIRE			
122	7250000607	SHEET PE			
123	761WPA160	HOLDER PANEL			
124	752WSA0677	SHIELD DIGITAL			
125	8965TS2010	CUSHION			
					W8/H20/L10

# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
RESISTORS				DIODES			
△R403	R3X28BR22J	R,METAL OXIDE	0.22 OHM 3W	D446	D1VT001330	DIODE,SILICON	1SS133T-77
△R404	RC31X1155J	RC	1.5M OHM 1W	D447	D1VT001330	DIODE,SILICON	1SS133T-77
△R406	R3K681S22J	R,METAL OXIDE	0.022 OHM 1W	D449	D1VT001330	DIODE,SILICON	1SS133T-77
△R412	R63881R22J	R,FUSE	0.22 OHM 1W	D450	D97U03R31B	DIODE,ZENER	MTZJ3.3B T-77
△R416	R655842R2J	R,FUSE	2.2 OHM 1/4W	D456	D1VT001330	DIODE,SILICON	1SS133T-77
△R466	R5X2AD15J	R,CEMENT	150 OHM 5W	D457	D2LXR2400	DIODE SCHOTTKY	SR240-F
△R473	R3K78A681J	R,METAL OXIDE	680 OHM 2W	D459	D97U02201B	DIODE ZENER	MTZJ22B T-77
△R475	R3K78A681J	R,METAL OXIDE	680 OHM 2W	D460	D4AT01H3E0	DIODE RECTIFIER	1H3-E
△R494	R3K78A681J	R,METAL OXIDE	680 OHM 2W	D461	D97U01101B	DIODE,ZENER	MTZJ1B T-77
△R497	R65581010J	R,FUSE	1 OHM 1W	D462	D2LXR2400	DIODE SCHOTTKY	SR240-F
△R533	R3K78B473J	R,METAL OXIDE	47K OHM 3W	D803	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△R5808	R65584470J	R,FUSE	47 OHM 1/4W	D804	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
CAPACITORS				D805	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
C376	E7EYF3102M	CE	1000 UF 25V	D806	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
C384	E7EYF3102M	CE	1000 UF 25V	D807	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△C402	P2122B334M	CMP	0.33 UF 275V ECQUL	D808	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△C406	E71LH331D	CE	330 UF 400V	D809	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
C422	E7EY78101D	CE	0.001 UF 250V	D810	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△C423	P4NAE6823H	CMPP	0.082 UF 800V	D811	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△C424	E8E6FH220M	CE	22 UF 400V	D812	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△C427	CD39B0MQ2K	CC	470 PF 250V	D813	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△C433	E7EYF4471M	CE	470 UF 35V	D814	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
△C434	E7EYF4122M	CE	1200 UF 35V	D2201	0021E9Q010	LED	LTL-1BEFJ-002A
△C435	E7EYF3102M	CE	1000 UF 25V	D2402	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
△C436	CD39E0M13M	CC	0.001 UF 250V	D3201	DD7RB051L0	DIODE SCHOTTKY	RB051L-40_TE25
△C438	E7EYF4122M	CE	1200 UF 35V	D3202	D28R1QS040	DIODE	EC31QS04-TE12L
△C440	E7EYF0222M	CE	2200 UF 6.3V	D3204	D28R1QS040	DIODE	EC31QS04-TE12L
△C441	E7ESU5100M	CE	10 UF 50V	D3205	D28R1QS040	DIODE	EC31QS04-TE12L
△C444	E7ESU0221M	CE	220 UF 6.3V	D3209	D28R1QS040	DIODE	EC31QS04-TE12L
△C448	P2122B104M	CMP	0.1 UF 275V ECQUL	D3210	D28R1QS040	DIODE	EC31QS04-TE12L
C449	E7EYF2102M	CE	1000 UF 16V	D3600	DD7R60L400	DIODE SCHOTTKY	RB160L-40_TE25
△C453	E7EYF2102M	CE	1000 UF 16V	D3601	D77R1A1R10	DIODE VARISTA	AVRL161A1R1NT
△C463	CD39B0MQ2K	CC	470 PF 250V	D3602	D7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
C466	E7EYF4471M	CE	470 UF 35V	D3603	D77R1A1R10	DIODE VARISTA	AVRL161A1R1NT
△C475	P4NAE6823H	CMPP	0.082 UF 800V	D3604	DD7R60L400	DIODE SCHOTTKY	RB160L-40_TE25
C3201	E7EYF2222M	CE	2200 UF 16V	D3605	DD7R60L400	DIODE SCHOTTKY	AVRL161A1R1NT
DIODES				D3626	D77R1A1R10	DIODE VARISTA	AVRL161A1R1NT
D105	DE7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17	D3627	D77R1A1R10	DIODE VARISTA	AVRL161A1R1NT
D107	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61	D3628	D28R1QS040	DIODE	EC31QS04-TE12L
D108	DE7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17	D3629	D28R1QS040	DIODE	EC31QS04-TE12L
D301	D28R11FS20	DIODE	EC11FS2-TE12L	D3630	DE7RB5R62B	DIODE ZENER	UDZSNP5.6B TE-17
D401	D4AT01H3E0	DIODE RECTIFIER	1H3-E	D3804	D4AT01H3E0	DIODE RECTIFIER	1H3-E
△D404	D6C047110A	DIODE VARISTA	ENE471D-10A	D4209	DE7RB6R82B	DIODE ZENER	UDZSNP6.8B TE-17
D406	D28R1QS040	DIODE	EC31QS04-TE12L	D4210	DE7RB4R72B	DIODE ZENER	UDZSNP4.7B TE-17
D407	D28R1QS040	DIODE	EC31QS04-TE12L	D4211	DE7RB4R72B	DIODE ZENER	UDZSNP4.7B TE-17
△D408	D2Z05SB800	DIODE,BRIDGE	D5SB80	D4212	DE7RB1202B	DIODE ZENER	UDZSNP12B TE-17
D411	DGERMA1110	DIODE SILICON	MA111-(TX)	D4213	DE7RB1202B	DIODE ZENER	UDZSNP12B TE-17
D412	D97U03R91B	DIODE,ZENER	MTZJ3.9B T-77	D4214	DE7RB1202B	DIODE ZENER	UDZSNP12B TE-17
D413	DGERMA1110	DIODE SILICON	MA111-(TX)	D4215	DE7RB1202B	DIODE ZENER	UDZSNP12B TE-17
D414	DGERMA1110	DIODE SILICON	MA111-(TX)	D4216	DE7RB6R82B	DIODE ZENER	UDZSNP6.8B TE-17
D415	DE7RB3R92B	DIODE ZENER	UDZSNP3.9B TE-17	D4217	DE7RB6R82B	DIODE ZENER	UDZSNP6.8B TE-17
D416	D97U02001B	DIODE,ZENER	MTZJ20B T-77	D4218	DE7RB6R82B	DIODE ZENER	UDZSNP6.8B TE-17
D419	DGERMA1110	DIODE SILICON	MA111-(TX)	D4219	DE7RB6R82B	DIODE ZENER	UDZSNP6.8B TE-17
D420	DGERMA1110	DIODE SILICON	MA111-(TX)	D4220	DE7RB6R82B	DIODE ZENER	UDZSNP6.8B TE-17
D421	DGERMA1110	DIODE SILICON	MA111-(TX)	D4221	DE7RB6R82B	DIODE ZENER	UDZSNP6.8B TE-17
D422	DD7R60M900	DIODE SCHOTTKY	RB160M-90TH	D4222	DE7RB1202B	DIODE ZENER	UDZSNP12B TE-17
D423	DGERMA1110	DIODE SILICON	MA111-(TX)	D6001	D1VT001330	DIODE,SILICON	1SS133T-77
D424	D4AT01H3E0	DIODE RECTIFIER	1H3-E	D6401	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
△D425	D2WTRM11C0	DIODE SILICON	RM11C-EIC	D6402	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
D426	D1VT001330	DIODE,SILICON	1SS133T-77	D6403	D28R1QS040	DIODE	EC31QS04-TE12L
△D427	D2WTRM11C0	DIODE SILICON	RM11C-EIC	D6404	D28R1QS040	DIODE	EC31QS04-TE12L
D428	DGERMA1110	DIODE SILICON	MA111-(TX)	D6405	D28R1QS040	DIODE	EC31QS04-TE12L
D429	DGERMA1110	DIODE SILICON	MA111-(TX)	D6406	D28R1QS040	DIODE	EC31QS04-TE12L
△D430	D2WTRM11C0	DIODE SILICON	RM11C-EIC	D6407	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
△D431	D2WTRM11C0	DIODE SILICON	RM11C-EIC	D6408	D28R1QS040	DIODE	EC31QS04-TE12L
D432	D2BE0RU3B0	DIODE SILICON	RJ3B LF-A5	D6409	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
D433	D4AT01H3E0	DIODE RECTIFIER	1H3-E	D6410	D28R1QS040	DIODE	EC31QS04-TE12L
△D435	D2CF091020	DIODE SILICON	ERC91-02J1H1SC	D6411	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
△D436	D28A10A100	DIODE SCHOTTKY	FCH10A10	D6412	DD7R20S300	DIODE SCHOTTKY	RB520S-30-TE61
△D437	D28A10A100	DIODE SCHOTTKY	FCH10A10	D6413	D28R1QS040	DIODE	EC31QS04-TE12L
D438	DGERMA1110	DIODE SILICON	MA111-(TX)			ICS	
D439	D97U03001B	DIODE,ZENER	MTZJ30B T-77	IC101	S30F01IM04	MEMORY DATA	RF5F1244SNFP
△D440	D28A10A100	DIODE SCHOTTKY	FCH10A10	IC105	I9UF032290	IC	PST3229NR
△D442	D4AT01H3E0	DIODE RECTIFIER	1H3-E	IC300	I0KJP21510	IC	NJM2151AV(TE1)
△D443	D28A10A200	DIODE SILICON	FCF10A20	△IC301	I0KJP89320	IC	TDA8932T
D445	D97U02401B	DIODE,ZENER	MTZJ24B T-77	△IC401	I2GT050600	IC	MP2A5060

# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
ICS			TRANSISTORS		
△IC402	I5SD0P2F40	IC MIP2F4	Q421	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y
△IC403	I1KJ9A431A	IC KIA431A-AT	Q424	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC404	I1KJ9A431A	IC KIA431A-AT	Q425	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC406	I1LF010150	IC AL1015	Q431	TNAAA05001	COMPOUND TRANSISTOR KRC101S-RTK
△IC407	I03T057790	IC LA5779-E	Q432	TAAT01241Y	TRANSISTOR SILICON KTA1241_Y-AT
△IC408	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	△Q433	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC409	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	△Q434	T25F035630	FET 2SK3563(ORION_Q)
△IC410	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	Q2401	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC801	S32M09SE01	MEMORY DATA M24256-BWMN6TP	Q3002	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC802	I9UF032290	IC PST3229NR	Q3003	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC803	S32M09SM01	MEMORY DATA VCT7993P-FA-A1-G-000	Q3004	TAAA01664Y	TRANSISTOR SILICON KTA1664-Y-RTF/P
IC2401	I5PK05ALCC	IC STI5105ALC	Q3200	T77J011320	TRANSISTOR SILICON 2SB1132T100(Q,R)
IC2402	I9UF032310	IC PST3231NR	Q3201	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC2403	ICLJ022EC5	HY5D0561622ETP-D43-C or	△Q3202	TS3M00044	COMPOUND TRANSISTOR CPH6312-TL-E
	ICLJ022ET5	HY5D0561622ETP-D43	Q3205	TAAA01664Y	TRANSISTOR SILICON KTA1664-Y-RTF/P
IC2404	S30F01IF01	MEMORY DATA SST39VF1601-70-4C-EKE	Q3206	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC2409	I5PJ0064W0	IC M24C64WMN6TP	Q3601	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC3001	I55F045FT0	IC TC74LCX245FT(EL)	Q3602	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC3002	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3603	T2AA5132E0	FET KTK5132E-RTK/P
IC3003	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3604	T2AA5132E0	FET KTK5132E-RTK/P
IC3004	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3605	T2AA5132E0	FET KTK5132E-RTK/P
IC3005	I55J0X2440	IC TC74LCX244FT(EL,K)	Q3606	T2AA5132E0	FET KTK5132E-RTK/P
IC3006	I55J0CX020	IC TC74LCX02FT(EL)	Q3615	T2AA5132E0	FET KTK5132E-RTK/P
IC3007	I55F0125F0	IC TC7SH125FU(TE85L,F)	Q3616	T2AA5132E0	FET KTK5132E-RTK/P
△IC3201	I07F0C0WF0	IC BA00BC0WFP-E2	Q3617	T2AA5132E0	FET KTK5132E-RTK/P
△IC3202	I1LF010150	IC AL1015	Q3618	T2AA5132E0	FET KTK5132E-RTK/P
△IC3203	I07F078200	IC BD7820FP-E2	Q3801	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC3204	I07F078200	IC BD7820FP-E2	Q3802	TAAA01664Y	TRANSISTOR SILICON KTA1664-Y-RTF/P
△IC3205	I1KF98D050	IC KIA78D05F	Q3803	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC3601	I07F078200	IC BD7820FP-E2	Q3804	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC3605	I1G1F090250	IC SII9025CTU	Q3805	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC3606	S32M09SE02	MEMORY DATA AT24C02BN-10SU-1.8	Q3806	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y
IC3609	S32M09SE03	MEMORY DATA AT24C02BN-10SU-1.8	Q3807	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC3801	I07F0C0WF0	IC BA00BC0WFP-E2	Q4201	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC4001	I5PK003620	IC STV0362	Q4202	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4201	I0UF015020	IC MM1502XNRE	Q4203	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC4202	I0UF015010	IC MM1501XNRE	Q4204	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4203	I0UF015010	IC MM1501XNRE	Q4205	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4204	I0QF025840	IC NJM2584AM(TE1)	Q4207	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4205	I0QF025840	IC NJM2584AM(TE1)	Q4208	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4206	I0UF015010	IC MM1501XNRE	Q4209	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4303	I0QF02534V	IC NJM2534V(TE2)	Q4210	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC4304	I0QF02534V	IC NJM2534V(TE2)	Q4214	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC6001	I0CJ040530	IC SN74LV4053APWR	Q4218	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC6401	I07F078200	IC BD7820FP-E2	Q4217	TPAAC05002	COMPOUND TRANSISTOR KRA103SRTK
△IC6402	I07F078200	IC BD7820FP-E2	Q4218	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
△IC6403	I07F078200	IC BD7820FP-E2	Q4221	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
△IC6404	I07F078200	IC BD7820FP-E2	Q4222	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
△IC6405	I07F078200	IC BD7820FP-E2	Q4223	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
IC6406	I0WF0H73C0	IC TSH73CDT	Q4224	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC6407	I07F078200	IC BD7820FP-E2	Q4303	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
TRANSISTORS			Q4304	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
Q101	T2AA5132E0	FET KTK5132E-RTK/P	Q4305	TPAAC05001	COMPOUND TRANSISTOR KRA102SRTK
Q102	T2AA5132E0	FET KTK5132E-RTK/P	Q4306	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
Q300	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK	Q4307	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
Q301	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK	Q4308	TPAAC05001	COMPOUND TRANSISTOR KRA102SRTK
Q302	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK	Q4309	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
Q303	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	Q4310	TNAAC05002	COMPOUND TRANSISTOR KRC103SRTK
Q304	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	Q6001	T2AA5132E0	FET KTK5132E-RTK/P
Q305	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	Q6002	T2AA5132E0	FET KTK5132E-RTK/P
Q321	TPAAC05001	COMPOUND TRANSISTOR KRA101SRTK	Q6005	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
Q401	TCAT03209Y	TRANSISTOR SILICON KTC3209_Y_AT	L104	0216SD220J	COIL 22 UH
Q402	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L300	021U0L220M	COIL 22 UH
Q403	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L302	021U0L220M	COIL 22 UH
Q404	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	△L401	029X00135	COIL LINE FILTER SS30V-R150270
△Q405	TCAT03209Y	TRANSISTOR SILICON KTC3209_Y_AT	△L402	029X00135	COIL LINE FILTER SS30V-R150270
△Q406	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	△L403	02F100001	COIL CHOKE DBE-688
△Q407	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y	△L405	0216TE220K	COIL 22 UH
Q408	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L408	021U0L470M	COIL 47 UH
Q409	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L409	021U0L330M	COIL 33 UH
△Q410	TJM50P030	FET RSS050P03_TB	L413	0216TE100K	COIL 10 UH
Q411	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK	L415	0216TE220K	COIL 22 UH
Q412	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	L4201	0216SD2R2J	COIL 2.2 UH
Q415	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK	L4202	0216SD2R2J	COIL 2.2 UH
Q416	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK	L4203	0216SD2R2J	COIL 2.2 UH
Q417	TAAT01241Y	TRANSISTOR SILICON KTA1241_Y_AT	L4204	0216SD2R2J	COIL 2.2 UH
Q418	TNAAB05001	COMPOUND TRANSISTOR KRC101S-RTK			
COILS & TRANSFORMERS					

# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
		COILS & TRANSFORMERS				MISCELLANEOUS	
L3001	0216SD2R2J	COIL	2.2 UH	B301	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
L3002	0216SD2R2J	COIL	2.2 UH	B302	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
L3201	0216T220K	COIL	22 UH	B303	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
L3202	021U0L330M	COIL	33 UH	B304	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
L3203	0216T220K	COIL	22 UH	B305	024HC51816	CORE,BEADS	HCB1608KF-181T20
L3601	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B306	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
L3602	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B307	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
L3603	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B401	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
L3604	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B402	024HC51816	CORE,BEADS	HCB1608KF-181T20
L3605	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B403	024HC51816	CORE,BEADS	HCB1608KF-181T20
L3606	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B404	024HT03553	CORE,BEADS	W5RH3.5X5X1.0
L3607	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B801	024HC51816	CORE,BEADS	HCB1608KF-181T20
L3608	02D6000068	COIL CHOKE	ACM2012D-900-2P-T00	B802	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4001	0216SD2R2J	COIL	2.2 UH	B803	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4002	0216SD2R2J	COIL	2.2 UH	B804	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4004	0216SD2R2J	COIL	2.2 UH	B805	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4201	021LA6101J	COIL	100 UH	B806	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4202	021LA6220J	COIL	22 UH	B807	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4203	021LA6220J	COIL	22 UH	B808	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4204	021LA6220J	COIL	22 UH	B809	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4205	021LA6220J	COIL	22 UH	B810	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4206	021LA6220J	COIL	22 UH	B811	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4207	021LA6220J	COIL	22 UH	B812	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4208	021LA6220J	COIL	22 UH	B813	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4209	0216MA220K	COIL	22 UH	B817	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4210	0216MA220K	COIL	22 UH	B818	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4211	021LA6220J	COIL	22 UH	B819	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4212	021LA6220J	COIL	22 UH	B2401	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4213	021LA6100J	COIL	10 UH	B2402	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4214	021LA6470J	COIL	47 UH	B2403	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4215	0216S81R5M	COIL	1.5 UH	B2404	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4218	0216S81R5M	COIL	1.5 UH	B2405	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4217	021LA6100J	COIL	10 UH	B2406	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4218	0216S81R5M	COIL	1.5 UH	B3001	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4219	021LA6470J	COIL	47 UH	B3002	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4221	021LA6470J	COIL	47 UH	B3201	024HC51216	CORE,BEADS	HCB1608KF-121T20
L4223	021LA6470J	COIL	47 UH	B3601	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4224	0216S91R5M	COIL	1.5 UH	B3602	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4225	021LA6100J	COIL	10 UH	B3603	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4226	021LA6470J	COIL	47 UH	B3604	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4227	021LA6220J	COIL	22 UH	B3605	024HC56005	CORE,BEADS	FCM1608CF-600T06
L4230	0216MA220K	COIL	22 UH	B3606	024HC51023	CORE,BEADS	FCM1608KF-102T02
L4231	0216MA220K	COIL	22 UH	B3608	024HC51023	CORE,BEADS	FCM1608KF-102T02
L4232	0216S91R5M	COIL	1.5 UH	B3609	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4233	021LA6470J	COIL	47 UH	B3610	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4305	0216SD220J	COIL	22 UH	B3613	024HC51816	CORE,BEADS	HCB1608KF-181T20
L4306	0216SD220J	COIL	22 UH	B3901	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
L6401	0216SD100J	COIL	10 UH	B4001	024HC56005	CORE,BEADS	FCM1608CF-600T06
L6406	0216SD2R2J	COIL	2.2 UH	B4002	024HC56005	CORE,BEADS	FCM1608CF-600T06
L6408	0216SD4R7J	COIL	4.7 UH	B4003	024HC56005	CORE,BEADS	FCM1608CF-600T06
L6409	0216SD4R7J	COIL	4.7 UH	B4200	024HC56005	CORE,BEADS	FCM1608CF-600T06
L6410	0216SD4R7J	COIL	4.7 UH	B4202	024HC56005	CORE,BEADS	FCM1608CF-600T06
△T401	0487420014	TRANSFORMER,SWITCHING	87420014	B4203	024HC58013	CORE,BEADS	FCM1608KF-601T02
△T402	0481190074	TRANSFORMER,SWITCHING	81190074	B4204	024HC58013	CORE,BEADS	FCM1608KF-601T02
<b>JACKS</b>							
△J401	064Q1A0003	JACK,AC	CCT2302-0911	B4205	024HC58005	CORE,BEADS	FCM1608CF-600T06
J4202	060R431037	RCA JACK	RCA-349-00C-05	B4206	024HC58005	CORE,BEADS	FCM1608CF-600T06
J4203	060R411054	RCA JACK	RCA-349-00D-01	B4207	024HC58005	CORE,BEADS	FCM1608CF-600T06
J4204	063Y000089	JACK PLATE	RCA/DIN-501A-00B-03	B4208	024HC56005	CORE,BEADS	W4BRH3.5X6X1.0X2
J4205	060J131021	HEADPHONE JACK	MSJ-035-08D_PC(O87)	B4209	024HT03563	CORE,BEADS	W4BRH3.5X6X1.0X2
J4206	063D000077	SOCKET,21PIN	MPC-021V-27_PC	B4210	024HT03563	CORE,BEADS	W4BRH3.5X6X1.0X2
J4301	060J151001	HEADPHONE JACK	MSJ-035-39D_B_PC_LF(O87)	B4211	024HT03563	CORE,BEADS	W4BRH3.5X6X1.0X2
<b>SWITCHES</b>							
SW2201	0504101T34	SWITCH,TACT	EVQ21505R	B4212	024HT03563	CORE,BEADS	W4BRH3.5X6X1.0X2
SW2202	0504101T34	SWITCH,TACT	EVQ21505R	B4213	024HC56005	CORE,BEADS	FCM1608CF-600T06
SW2203	0504101T34	SWITCH,TACT	EVQ21505R	B4214	024HC53306	CORE,BEADS	HCB1608KF-330T50
SW2204	0504101T34	SWITCH,TACT	EVQ21505R	B4215	024HC53306	CORE,BEADS	HCB1608KF-330T50
SW2205	0504101T34	SWITCH,TACT	EVQ21505R	B4216	024HC53306	CORE,BEADS	HCB1608KF-330T50
SW2206	0504101T34	SWITCH,TACT	EVQ21505R	B4221	024HC53306	CORE,BEADS	HCB1608KF-330T50
SW2207	0504101T34	SWITCH,TACT	EVQ21505R	B4222	024HC53306	CORE,BEADS	HCB1608KF-330T50
<b>P.C.BOARD ASSEMBLIES</b>							
PCB240	A32M09S240L	POWER PCB ASS'Y	CEF273A	B4223	024HC53306	CORE,BEADS	HCB1608KF-330T50
PCB270	A32M09S270L	OPERATION PCB ASS'Y	CEF274A	B4228	024NC51021	CORE,BEADS	EBMS160808A102_RDC45
PCBDA0	A32M09SDA0L	REMOCON PCB ASS'Y	CEF275A	B4229	024NC51021	CORE,BEADS	EBMS160808A102_RDC45
PCBDH0	A32M09SDH0L	DIGITAL PCB ASS'Y	CEF243A	B4301	024NC51021	CORE,BEADS	EBMS160808A102_RDC45
PCBF40	A32M09SF40L	MAIN PCB ASS'Y	CMF111B	B4302	024NC51021	CORE,BEADS	EBMS160808A102_RDC45
				B4303	024HC56005	CORE,BEADS	FCM1608CF-600T06

# ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION		
MISCELLANEOUS			MISCELLANEOUS				
B4304	024HC56005	CORE,BEADS	FCM1608CF-600T06	NR2407	110P4560M5	R,NETWORK	4D02WGJ0560TCE
B4305	024HC56005	CORE,BEADS	FCM1608CF-600T06	NR2408	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4306	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2409	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4307	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2410	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4309	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2411	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4312	024HC56005	CORE,BEADS	FCM1608CF-600T06	NR2412	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4314	024NC51021	CORE,BEADS	EBMS160808A102_RDC45	NR2413	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4315	024NC51021	CORE,BEADS	EBMS160808A102_RDC45	NR2414	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4317	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2415	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4318	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2416	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4322	024HC56005	CORE,BEADS	FCM1608CF-600T06	NR2417	110P4000M5	R,NETWORK	4D02WGJ0000TCE
B4324	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2418	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B4326	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR2419	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6001	024HC56013	CORE,BEADS	FCM1608KF-601T02	NR2420	110P4560M5	R,NETWORK	4D02WGJ0560TCE
B6003	024HT03563	CORE,BEADS	W4BRH3.5X61.0X2	NR2421	110P4560M5	R,NETWORK	4D02WGJ0560TCE
B6401	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR2422	110P4560M5	R,NETWORK	4D02WGJ0560TCE
B6402	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3001	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6403	024HC56005	CORE,BEADS	FCM1608CF-600T06	NR3002	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6404	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3003	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6405	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3004	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6406	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3005	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6407	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3006	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6408	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3007	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6409	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3008	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6410	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3009	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B6411	024HC51023	CORE,BEADS	FCM1608KF-102T02	NR3010	110P4470M5	R,NETWORK	4D02WGJ0470TCE
B7201	024HC51816	CORE,BEADS	HCB1608KF-181T20	NR3011	110P4470M5	R,NETWORK	4D02WGJ0470TCE
BT001	141R003018	BATTERY,MANGAN	GR8M	NR3012	110P4470M5	R,NETWORK	4D02WGJ0470TCE
BT002	141R003018	BATTERY,MANGAN	GR6M	NR3601	110P4330M4	R,NETWORK	4D03WGJ0330TSE
CD302	06CU145005	CORD CONNECTOR	CU145005	NR3602	110P4330M4	R,NETWORK	4D03WGJ0330TSE
CD403	06CU2E2202	CORD CONNECTOR	CU2E2202	NR3603	110P4330M4	R,NETWORK	4D03WGJ0330TSE
CP101	069S260629	CONNECTOR PCB SIDE	A2001WV2-6P	NR3604	110P4330M4	R,NETWORK	4D03WGJ0330TSE
CP301	069S140419	CONNECTOR PCB SIDE	A2502WV2-4P	NR3605	110P4330M4	R,NETWORK	4D03WGJ0330TSE
CP401	069D01001A	CONNECTOR PCB SIDE	003P-2100	NR3606	110P4330M4	R,NETWORK	4D03WGJ0330TSE
CP405	069D01001A	CONNECTOR PCB SIDE	003P-2100	OS2201	077A033001	REMOTE RECEIVER	ROM-V338TAO
CP406	069S2E0639	CONNECTOR PCB SIDE	A2001WR2-14P	△RY401	0560V50119	RELAY	ALKS329_A60
CP408	069D01001A	CONNECTOR PCB SIDE	003P-2100	△SP301	070Y056003	SPEAKER	S0412F03
CP411	06977N001B	CONNECTOR PCB SIDE	TWG-P23P-B1	△SP302	070Y056003	SPEAKER	S0412F03
CP412	069779001B	CONNECTOR PCB SIDE	TWG-P09P-B1	SH2401	126D000044	TERMINAL PIN	YQ-36
CP413	069D01001A	CONNECTOR PCB SIDE	003P-2100	SH2402	126D000044	TERMINAL PIN	YQ-36
CP802	069S260629	CONNECTOR PCB SIDE	A2001WV2-6P	SH2403	126D000044	TERMINAL PIN	YQ-36
CD3810	120Q155804	CORD AC	P205-1324-4	SH2404	126D000044	TERMINAL PIN	YQ-36
CD4301	06CU258302	CORD CONNECTOR	CU258302	SH4301	126D000044	TERMINAL PIN	YQ-36
CD4302	06CU238201	CORD CONNECTOR	CU238201	SH4302	126D000044	TERMINAL PIN	YQ-36
CD7204	06CHRU2207	CORD CONNECTOR	CHRU2207	SH4303	126D000044	TERMINAL PIN	YQ-36
CP2201	069S250639	CONNECTOR PCB SIDE	A2001WR2-5P	SH4304	126D000044	TERMINAL PIN	YQ-36
CP2203	069S230639	CONNECTOR PCB SIDE	A2001WR2-3P	SH4305	126D000044	TERMINAL PIN	YQ-36
CP2401	069S250679	CONNECTOR PCB SIDE	A2006WR10-2X5P	SH4306	126D000044	TERMINAL PIN	YQ-36
CP2402	069S250629	CONNECTOR PCB SIDE	A2001WV2-5P	SH4307	126D000044	TERMINAL PIN	YQ-36
CP3001	069EN680020	CONNECTOR PCB SIDE	36_5027_068_130_B31+	△TH401	DSC00VE4R0L	THERMISTOR	4D2-18LCS
CP3002	063M000002	HOLDER,IC	30_5027_000_102_000+	TM101	076R0NV010	TRANSMITTER	R66-1236
CP3400	069S220629	CONNECTOR PCB SIDE	A2001WV2-2P	△TU6002	0164Y03002	DIGITAL TUNER	TDG-S156D
CP3601	0694YJ3018	CONNECTOR PCB SIDE	1903015-3	△V2301	09EB132021	LCD	LTA320WT-L05
CP3603	0694YJ3018	CONNECTOR PCB SIDE	1903015-3	X101	100GT01615	CRYSTAL	B16000E007
CP3801	06977NM020	CONNECTOR PCB SIDE	127301123K2	X801	100DT02007	CRYSTAL	DSX840GA
CP3802	069779M020	CONNECTOR PCB SIDE	127301109K2	X2401	100GT02720	CRYSTAL	B27000C005
CP4301	069S250629	CONNECTOR PCB SIDE	A2001WV2-5P	X3602	100DT02801	CRYSTAL	SMD-49
CP4302	06G2321502	CONNECTOR PCB SIDE	D229FD0155107BY	X4001	100GT02720	CRYSTAL	B27000C005
CP4304	069S230629	CONNECTOR PCB SIDE	A2001WV2-3P	RESISTOR			
CP6001	06972UM018	CONNECTOR PCB SIDE	TKC-W30P-P1	RC..... CARBON RESISTOR			
CP8401	06972UT018	CONNECTOR PCB SIDE	125622330K3	CAPACITORS			
CP7201	06G3VWT01A	CONNECTOR PCB SIDE	20389-Y30E	CC.....	CERAMIC CAPACITOR		
EL2401	124116281A	EYE LET	XRY16X28BD	CE.....	ALUMI ELECTROLYTIC CAPACITOR		
EL2402	124120301A	EYE LET	XRY20X30BD	CP.....	POLYESTER CAPACITOR		
F401	080NT05004	FUSE	50T050H	CPP.....	POLYPROPYLENE CAPACITOR		
F404	0635C02003	MICRO FUSE	20N_2000FS	CPL.....	PLASTIC CAPACITOR		
FH401	06710T0009	HOLDER,FUSE	EYF-52BCY	CMP.....	METAL POLYESTER CAPACITOR		
FH402	06710T0009	HOLDER,FUSE	EYF-52BCY	CMPL.....	METAL PLASTIC CAPACITOR		
M3400	1519Y55L01	FAN MOTOR	2004KL-04W-B30-M09	CMPP.....	METAL POLYPROPYLENE CAPACITOR		
NR801	110P4470M4	R,NETWORK	4D03WGJ0470T5E				
NR802	110P4470M4	R,NETWORK	4D03WGJ0470T5E				
NR2401	110P4560M5	R,NETWORK	4D02WGJ0560TCE				
NR2402	110P4560M5	R,NETWORK	4D02WGJ0560TCE				
NR2403	110P4560M5	R,NETWORK	4D02WGJ0560TCE				
NR2404	110P4560M5	R,NETWORK	4D02WGJ0560TCE				
NR2405	110P4560M5	R,NETWORK	4D02WGJ0560TCE				
NR2406	110P4560M5	R,NETWORK	4D02WGJ0560TCE				

SPEC.NO.	M32M-09S
O/R NO.	U793518